DOCUMENT RESUME

ED 255 249 JC 850 112

AUTHOR Priest, Bill J.; And Others
TITLE A Study of Public Higher Education in the Oklahoma City Area with Special Focus on Community College Services. Report on the Delivery of Comprehensive Community College Services in Metropolitan Oklahoma City.
INSTITUTION Oklahoma City Community Coll., OK.
PUB DATE Sep 84
NOTE 109p.; Prepared for the Oklahoma City Community College Board of Regents for presentation to the Oklahoma State Regents for Higher Education and the Oklahoma Legislature.
PUB TYPE Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *College Planning; *Community Colleges; Computer Oriented Programs; Cost Effectiveness; *Delivery Systems; Educational Technology; Educational Television; Educational Trends; Extension Education; Institutional Characteristics; Program Development; Two Year Colleges; Urban Education

ABSTRACT

In response to a legislative mandate, a study was conducted to identify and address the basic factors which should be considered in the expansion of postsecondary educational opportunities in metropolitan Oklahoma City, with specific focus on the steps to be taken by Oklahoma City Community College (OCCC). Study findings, based on demographic data, market trends, costs analysis, and manpower needs, included the following: (1) a modest rate of growth in the Oklahoma City area and a slight increase in the age of the citizenry is expected; (2) the northeast and northwest sectors of Oklahoma City lack adequate service by community colleges; (3) there is minimal coordination between Rose State College and OCCC, which were both assigned Oklahoma County and the surrounding area as their service area; (4) state-level structures for coordination and cooperation are required to avoid unwarranted duplication and competition in the expansion of postsecondary education; (5) technological and traditional off-campus instructional delivery systems and extended extension offerings can help meet educational needs cost effectively; and (6) many opportunities for cooperative training efforts with business and industry exist in the area. The report includes a section on background of the study, a national and state overview of changing patterns in higher education, a profile of metropolitan Oklahoma City, a description of the current status and future prospects of OCCC, a discussion of the potential use of alternative delivery systems, and recommendations for meeting the area's educational needs. (LAL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
D. L. Newport

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☒ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED255249

A Study of Public Higher Education in the Oklahoma City Area

With Special Focus on Community College Services

OKLAHOMA CITY COMMUNITY COLLEGE

JC 850 112

OKLAHOMA CITY COMMUNITY COLLEGE
7777 SOUTH MAY AVENUE
OKLAHOMA CITY, OKLAHOMA 73159

REPORT ON THE DELIVERY OF COMPREHENSIVE COMMUNITY COLLEGE SERVICES IN METROPOLITAN OKLAHOMA CITY

Prepared for

The Oklahoma City Community College

Board of Regents

for presentation to

The Oklahoma State Regents for Higher Education

and

The Oklahoma Legislature

by

Dr. Bill J. Priest
Consultant in Community/Junior College Education

Dr. Ruth G. Shaw
Co-Consultant

and

Dr. Rodger Pool
Contributing Author

September 1984

BEST COPY AVAILABLE

TABLE OF CONTENTS

		Page
	Acknowledgments	iii
	List of Figures and Tables	iv
I.	Introduction	1
	A. Background of CR 1025	1
	B. Purpose and Limitations of the Study	3
II.	Summary of Findings and Recommendations	6
III.	Higher Education: Changing Patterns	9
	A. The National Scene	9
	B. The State Scene	12
IV.	Metropolitan Oklahoma City: A Profile	16
	A. Characteristics of Oklahoma City Population	16
	B. Economic and Employment Profile	23
	C. Availability of Postsecondary Education	26
V.	Oklahoma City Community College: Current Status, Future Prospects	36
	A. Organizational Overview	36
	B. Student Characteristics	46
	C. Current Cooperative Agreements and Off-Campus Offerings	58
	D. Impact of Expanded Off-Campus Offerings on OKCCC	61
VI.	Alternative Instructional Delivery Systems	63
	A. Off-campus Delivery	63
	B. Technology-based Delivery	66
	1. Over-the-Air Telecommunications Delivery Systems	68
	a. Broadcasting	69
	b. Instructional Television Fixed Services (ITFS)	70

		Page
	c. Low-Power Television (LPTV)	73
	d. Satellites	75
	2. Cable Transmissions	77
	3. Video Copy Delivery Systems	79
	4. Radio and Audio Systems	80
	5. Computer Technology	82
	6. Considerations in System Selection	83
	C. Observations on Cost Effectiveness	85
VII.	General Summary: Opportunities and Obligations	89
	A. Recommendations and Suggestions	89
	B. Remaining Questions	93
	C. Special Consideration for Oklahoma City Community College	93
	Appendix I. Metro Oklahoma City Market	97

This publication is printed and issued by Oklahoma City Community College as authorized by the Board of Regents. 200 copies have been prepared at a cost to the taxpayers of the State of Oklahoma of $383.00.

ACKNOWLEDGMENTS

In order to obtain the pertinent data and gain sufficient background to interpret it accurately, it was necessary to seek assistance from many knowledgeable leaders in the metropolitan Oklahoma City area. Among those who supplied significant help are the following:

Dr. Bill J. Lillard, President, Central State University

Mr. Jean Cox and Mr. Jess Matheny, Oklahoma City Chamber of Commerce

Dr. Joe Packnett, President, Rose State College

Dr. Bruce Gray, Superintendent, The Francis Tuttle Vo-Tech Center

Dr. E. T. Dunlap, Former Chancellor, Oklahoma State Regents For Higher Education

Dr. Joe Leone, Chancellor, Oklahoma State Regents For Higher Education

Dr. Dan Hobbs, Oklahoma State Regents For Higher Education

Dr. Alfred M. Phillips, President, Tulsa Junior College

Senator Marvin York, Oklahoma State Senate

Representative Jim Fried, Oklahoma State House of Representatives

Mr. Lanny A. Gardner, Chairman, Board of Regents, Oklahoma City Community College

Ms. Jane Hardin, Member of Board of Regents, Oklahoma City Community College

Dr. Donald Newport, President, Oklahoma City Community College

Acknowledgment of the assistance provided by the above listed people is not intended to imply that they support the findings and conclusions spelled out in this report.

Bill J. Priest, Consultant

LIST OF TABLES, FIGURES AND MAPS

Tables

		Page
1.	"Trends in Population Growth for the Oklahoma City Metropolitan Area"	17
2.	"Population Patterns in Oklahoma City"	19
3.	"Age Groups: Oklahoma City Metro Area Compared to U.S."	20
4.	"Education in Oklahoma City Metro Area"	21
5.	"1980 Census Information"	22
6.	"Employment in Metro Oklahoma City"	24
7.	"Programs Offered by OKCCC, RSC, and OSU-TI"	29 - 33
8.	"Average Annual First-Time Freshmen: Numerical Enrollments from Oklahoma and Cleveland Counties"	34
9.	"Average Annual First-Time Freshmen: % Enrollments from Oklahoma and Cleveland Counties"	35
10.	"Revenues from State Appropriations Per FTE Student"	45
11.	"Educational and General Expenditures Per FTE Student"	46
12.	"Distribution of Headcount and Credit Hours in Day and Night Classes"	51
13.	"OKCCC Enrollment by Program: 1980-83"	52 - 55
14.	"Participation Rate at OKCCC by Zip Code in the Metropolitan Oklahoma City Area"	56

Figures

1.	"Organization of Oklahoma City Community College"	38
2.	"Educational and General Expenditures by Function"	47
3.	"OKCCC Student Credit Headcount Enrollment"	48
4.	"OKCCC Full-Time Equivalencies: 1980-83"	49

Maps

1.	"Postsecondary Educational Providers in Oklahoma County"	27
2.	"Counties Contributing 10% or More of Their First-Time Freshmen to OKCCC"	57

I. INTRODUCTION

A. Background and Intent of CR 1025

The growth of the Oklahoma City metropolitan area has made evident the need for expanded post-secondary educational opportunities, particularly in the underserved northwestern quadrant of the city. The State of Oklahoma has been building greater efficiency in terms of the ratio of its higher educational institutions to the population served. This emphasis on efficiency recognizes the scarcity of public resources and the need to use existing institutions to meet expanding needs.

Recognizing the need to serve the Oklahoma City metropolitan area more effectively without expanding the number of educational institutions, Concurrent Resolution 1025 was introduced during the second session of the 39th Oklahoma Legislature (1984). Sponsored by Senator Marvin York and Representatives Jim W. Fried and John L. Monks, CR 1025 reads as follows:

CONFERENCE COMMITTEE SUBSTITUTE

A CONCURRENT RESOLUTION COMMENDING THE OKLAHOMA STATE REGENTS FOR HIGHER EDUCATION AND THE BOARD OF REGENTS OF OKLAHOMA CITY COMMUNITY COLLEGE FOR PROVIDING CERTAIN SERVICES; EXPRESSING LEGISLATIVE INTENT THAT A STUDY BE CONDUCTED OF CERTAIN SERVICES; REQUIRING A CERTAIN REPORT; EXPRESSING LEGISLATIVE INTENT THAT OKLAHOMA CITY COMMUNITY COLLEGE MEET CERTAIN EDUCATIONAL NEEDS IN METROPOLITAN OKLAHOMA CITY THROUGH DELIVERY OF CERTAIN SERVICES; EXPRESSING LEGISLATIVE INTENT THAT COURSES BE OFFERED FOR RESIDENT CREDIT; AND DIRECTING DISTRIBUTION.

WHEREAS, the demand for educational services in communities has increased as shown by the fact that enrollment in the comprehensive community colleges has increased over the past five (5) years; and

WHEREAS, the state budget crisis has had the effect of a negative increase in appropriations to the institutions comprising The Oklahoma State System of Higher Education, and may result in an actual decrease in said appropriations when compared with appropriations of previous years; and

WHEREAS, in the past, the comprehensive community colleges in the Oklahoma City area have demonstrated their ability to provide much needed educational services to the people in that area.

NOW, THEREFORE, BE IT RESOLVED BY THE HOUSE OF REPRESENTATIVES OF THE 2ND SESSION OF THE 39TH OKLAHOMA LEGISLATURE, THE SENATE CONCURRING THEREIN:

SECTION 1. The Oklahoma Legislature commends the Oklahoma State Regents for Higher Education and the Board of Regents of Oklahoma City Community College for the delivery of comprehensive community college services in metropolitan Oklahoma City.

SECTION 2 . It is the intent of the Oklahoma Legislature that the Board of Regents for Oklahoma City Community College conduct a study on cost-effective methods for the delivery of educational services in the Oklahoma City area. The study should provide direction for the provision of comprehensive community college level educational services to the largest number of students throughout metropolitan Oklahoma City at the lowest possible cost and in a manner which avoids unnecessary duplication of services. On or before January 1, 1985, a report of this study should be provided to the Oklahoma State Regents for Higher Education, the Speaker of the House of Representatives, and the President Pro Tempore of the Senate.

SECTION 3. It is the intent of the Oklahoma Legislature that Oklahoma City Community College meet the community college educational needs of metropolitan Oklahoma City through a metropolitan based system of delivery of comprehensive community college level offerings, through a cost efficient delivery of educational services throughout metropolitan Oklahoma City.

SECTION 4. It is further the intent of the Oklahoma Legislature that Oklahoma City Community College is to provide community college courses for resident credit throughout metropolitan Oklahoma City.

SECTION 5. Copies of this resolution shall be dispatched to each member of the Oklahoma State Regents for Higher Education and each member of the Board of Regents of Oklahoma City Community College.

The resolution was approved by both houses of the Oklahoma State Legislature and referred to the Board of Regents for Oklahoma City Community College for appropriate action as specified in sections 2, 3, and 4. This study represents the first step taken by the Oklahoma City Community College Board of Regents in response to the resolution. A report of the study is to be presented to the Oklahoma State Regents for Higher Education, the Speaker of the House of Representatives, and the President Pro Tempore of the Senate by January 1, 1985.

The intent of CR 1025, according to the political and educational leaders who submitted it, is to stimulate a review of the post-high school educational services available in metropolitan Oklahoma City and of the setting in which these services are delivered. Such a review will, they believe, lead to modifications which are likely to improve the quality, quantity, and cost-effectiveness of higher education in the area.

The proponents of CR 1025 share the view of other Oklahoma leaders that education plays a pivotal role in the growth and prosperity of both the individual and the community. In order to cope with the rapidly changing educational needs of the nation, it is imperative that educational delivery systems be reviewed carefully and frequently if waste and obsolescence are to be prevented. This resolution represents one attempt to address some of the critical educational issues facing Oklahoma citizens, their public servants and their governing bodies.

B. Purpose and Limitations of the Study

It should be pointed out that no exclusivity in the "delivery of educational services throughout metropolitan Oklahoma City" is intended for Oklahoma City Community College. Rather, the mandate of the resolution is for OKCCC to

determine how it can best meet the educational needs without duplicating services provided by existing institutions. Throughout this study, opportunities for coordination and cooperation between existing educational institutions have been stressed, although the focus of this paper is, properly, on specific directions to be explored by OKCCC.

The greatest difficulty encountered by the preparers of this report was not in determining whether postsecondary educational needs existed--the demographic data demonstrate that clearly--but in determining how the needs should be met. Since cooperation and coordination will be required, and since the Oklahoma Regents for Higher Education are responsible for initiating such efforts, many of the suggestions made herein are aimed at the state level. It became increasingly evident as the study progressed that since "exclusivity" in serving metropolitan Oklahoma City was neither intended nor desired by those advocating CR 1025, then the response to CR 1025 must come not only from Board of Regents of Oklahoma City Community College, but also from state-level leadership.

Article 13A of the Oklahoma State Constitution assigns to the Oklahoma State Regents For Higher Education the control of all state institutions of higher learning. Among the powers assigned is the power to determine functions and programs of the colleges. This authority covers such matters as the level at which courses shall be offered, the mission of each college, the service area of each college and the location and college authorized to offer outreach programs (i.e., any course offered off campus). Since the ultimate decision rests in the hands of the State Regents, the resolution from the legislature becomes a suggestion to the State Regents who may or may not see fit to follow the suggestion. Historically, the State Regents for Higher Education have been very sensitive about encroachments on their constitutionally granted powers. However the ultimate fiscal control rests with the Legislature so it is likely that a

legislative expression of intent will receive serious consideration by the Regents.

To act upon CR 1025, decision-makers at the local and state levels will require the following:

1. Background on the rapidly changing patterns in higher education;
2. Demographic trends in the metropolitan Oklahoma City area which affect educational offerings;
3. An overview of post-secondary educational services now available in metropolitan Oklahoma City;
4. A summary of the current status of OKCCC and its future prospects;
5. An analysis of possible alternative delivery systems and their advantages/disadvantages, particularly in terms of cost effectiveness.
6. A set of recommendations and suggestions for further action.

This study will provide the above information and analysis.

While the paper makes extensive use of demographic data, market trends, cost analysis, and manpower needs, it is <u>not</u> an in-depth exploration of any of these areas. Rather, it relies upon existing data to inform the conclusions reached. The findings of the study changed the nature of the study itself from a detailed plan for local action to a framework for state-level planning for the Oklahoma City area. A unilateral plan for expansion throughout metropolitan Oklahoma City by OKCCC is not warranted nor recommended.

II. SUMMARY OF FINDINGS AND RECOMMENDATIONS

This study has attempted to identify and address the basic factors which should be considered in the expansion of postsecondary educational opportunities in metropolitan Oklahoma City. It has focused specifically on steps to be taken by Oklahoma City Community College, insofar as such steps were not counterproductive to the efficient, non-duplicative delivery of educational services.

Many of these factors can be described by tables of demographic data or charts of enrollment growth. This "hard data" is fundamental to sound public policy when the expansion of educational services is being considered. However, the decision of whether to expand services and how to expand services will use the experience, knowledge, and insight of informed individuals to build upon this factual foundation. The following summation builds upon the requisite data and incorporates the judgments of the authors.

This summary section interprets the findings in their simplest form. Expansion of these points can be found in the main body of the report.

Findings

1. Growth in the Oklahoma City area will continue at a modest rate for the forseeable future. Average age of the citizenry is expected to increase slightly.
2. The northwest sector of Oklahoma City, which is heavily populated and growing rapidly, is not adequately served since both OKCCC and RSC are located in the southern quadrants of the City.
3. The northeast sector of Oklahoma City, where nearly two-thirds of the black population resides, lacks easily accessible community colleges.
4. Oklahoma County is currently served by two public community colleges: Rose State College and Oklahoma City Community College. Both are assigned "Oklahoma County and surrounding area" as their service area

by statute. Both are located in the southern half of the city. There is minimal coordination of their educational enterprises.

5. Genuine postsecondary educational needs exist in Oklahoma County. However, unwarranted duplication and competition will be unavoidable without state-level structures for coordination and cooperation.
6. Technological and traditional off-campus instructional delivery systems can be used in cost-effective ways to meet the educational needs of Oklahoma County.
7. Extension offerings for resident credit must be expanded if educational needs are to be met without additional facilities.
8. Many opportunities for cooperative training efforts with business and industry exist. Such cooperation can contribute to the economic development of Oklahoma City.

Recommendations

1. Review, with an eye to revision, the structure of post-secondary education in Oklahoma.
2. Do not consider Oklahoma City Community College as the exclusive deliverer of community college courses throughout metropolitan Oklahoma City.
3. Develop clear public policy statements on the assignments given to public institutions so that the institution best qualified can deliver the needed service.
4. Emphasize and encourage partnerships between community colleges and business and industry.
5. Examine alternative technology-based delivery systems for their application and expansion in Oklahoma County.
6. Develop a means for reporting program offerings that will assist in

identifying both need and duplication.

7. Expand traditional off-campus credit offerings in Oklahoma County through the existing off-campus course approval mechanism. Such an expansion will require an attitude of espousal and encouragement at the state level.

8. With leadership from the Chancellor's office, involve existing public institutions in developing a plan to serve the heavily populated northwest quadrant of Oklahoma City.

As noted in the Introduction, the major recommendations related to the expansion of postsecondary education in Oklahoma County are targeted at the state level because they require a cooperative endeavor that Oklahoma City Community College cannot alone ensure. Specific recommendations for OKCCC are contained in the final chapter of this report, and they relate to the strategic positioning of the college for the future rather than to immediate action plans for the expansion of services.

III. HIGHER EDUCATION: CHANGING PATTERNS

The intent of Concurrent Resolution 1025 must be placed not only in the local context of Oklahoma City, but also in the larger context of national developments in higher education and of statewide priorities and parameters. This chapter examines these contexts.

A. The National Scene

After a period of explosive growth through the 1960's and 1970's, community colleges nationwide are expected to experience modest to negligible growth through the 1980's. The most important factor in this slowed growth is a decline in the number of high school graduates. With fewer 18-year olds available to enter college, more older part-time students are likely to be served in all segments of higher education, and particularly in community colleges.

Community college enrollments will come from increasingly older students, so an increased focus on meeting the needs of the adult learner is to be expected. More and more adults will be changing careers over the coming decade, and an increasing number of citizens will return to college for training or retraining. Nationally, enrollment of students over 35 has increased by nearly 40% over the past three years. Much of this enrollment growth is attributable to women returning for training prior to entering the workforce. Community colleges, perhaps more so than any other segment of higher education, must attract, serve, and retain the older students who will not only carry the greatest tax burden, but will demand the greatest educational services.

Many of the new older students will not only be independent of their parents and enrolled part-time, but they will also be supporting families or saddled with the conventional debts of adulthood. The pressures of their families and their jobs will demand that college opportunities be convenient and low-cost if

they are to participate.

Both general education and career education must be easily accessible to an increasingly heterogeneous student population. Declining numbers of "traditional" students and increased demands for off-campus offerings can lead to an unhealthy competition between educational institutions which rely on the same public tax dollars. If students and citizens are to be well served, new models of cooperation and coordination must replace competition between tax-supported educational institutions.

The shift to an older student body will offer new challenges to developmental or remedial education since millions of adults lack basic literacy skills and will turn to the community college for assistance in developing these skills. Proficiency standards for high school graduation may accelerate the high school dropout rate. Thus more students may be entering the community college--several years after dropping out of high school--with GED certificates or by individual approvals. Greater numbers of students who find the formal educational setting alien to them will demand new teaching strategies, individual programs of instruction, and flexibility in every aspect of their educational endeavors.

It is in the area known as "lifelong learning," variously called adult or continuing education or community service, that perhaps the greatest changes can be expected. Lifelong learning has emerged as a principal purpose for the community college, but much confusion surrounds institutional roles in the provision of lifelong education. University extension centers, public schools, community colleges, and other public and private agencies are interested in advancing lifelong learning. While all resources may be required, the American Association of Community and Junior Colleges has called for the development of appropriate relationships among and between the various organizations. Functions must be more clearly defined; the total task more sharply delineated;

the strategies explored for increased efficiency. While the increased number of older students lends impetus to the concept of lifelong learning, scarce resources will provide the prod for new cooperative alliances to better utilize available resources. The community college may emerge as a leader in such ventures, drawing upon many community resources to show how such cooperative arrangements can be made to work. But funding allocation systems must be structured to provide for them. Furthermore, the public must be convinced of the worth of lifelong learning by studies of productivity and outcomes. Unfortunately, many believe that unless credit or a degree is being pursued, money spent on educational endeavors is wasted. In times of shrinking dollars, thinking has a tendency to become reactionary, especially when "traditional" college models of the past are called up as the patterns for the future. Perhaps the future will bring better measures of the obvious value of lifelong learning. Such measures will be required to maintain public support over the long haul.

The ever-increasing variety of students will require continued attention to individualized instructional programs. These programs, however, must include the essential person-to-person contact so vital for the often insecure older student returning to college. Technological advances in telecommunications will make possible entire programs of study in the home. Such systems may well be interactive, allowing more student-"instructor" involvement than was ever thought possible in the traditional classroom. Flexible entry and exit provisions will be the rule rather than the exception in the community college of the 1980s and 1990s. Attention to student learning style and accommodation of different styles will characterize the instructional revolution.

Although educational institutions have not enjoyed marked success in developing cooperative ventures with each other, they have been more successful

in developing alliances with business and industry. The importance of trained manpower in contributing to economic development has been made abundantly clear in states such as North Carolina, South Carolina and California. At the subprofessional level, the community college is an important link in the manpower development chain.

Increasingly, the classroom is being transported to the company. Scarce state resources, skyrocketing costs, and incomprehensible rates of technological change have created a marriage of necessity between industry and higher education. Such alliances may depend on televised delivery of lectures, on interactive computer systems, or in the use of corporate expertise as part of the college staff. But the focus is on convenience to employees, cost-effectiveness for the state and the corporate sector, and state-of-the-art training to encourage economic development.

B. The State Scene

The state of Oklahoma was an early participant in the junior college movement. Between 1920 and 1940, 19 "public district junior colleges" were created. In 1939, these institutions enrolled fewer than 1600 students.

The years 1939 - 1967 saw the demise of most of the public district junior colleges as a result of low enrollments and insufficient financial support. Today, only one of the original 19 public district junior colleges exists, but 13 community junior colleges are full-fledged members of the State System.

These two year state colleges have similar functions. They provide undergraduate lower division study with emphasis on programs to achieve these purposes: (1) provide general education for all students; (2) provide education in several basic fields of study for students who plan to transfer to senior colleges and complete requirements for the bachelor's degree; (3) provide technical and occupational education in several fields of study; and (4) provide both formal and informal programs of study, especially designed for adults and

out-of-school youth in order to serve the community generally with a continuing education program. The two-year institutions provide courses which lead to receipt of the associate degree. The degree is officially granted by the Oklahoma state system of higher education.

Oklahoma Higher Education: Planning for the 1980's, prepared by Dan S. Hobbs for the Oklahoma State Regents for Higher Education, describes anticipated trends in the state higher education scene. Not surprisingly, the Oklahoma picture reflects many of the national trends. The state population is growing older, with a concomitant decline in the cohort of "traditional" college-attending students. More women are attending institutions of higher education. Parity of minority enrollments is being encouraged. Part-time enrollments are increasing, requiring more headcount students for a full-time equivalency. Community colleges are seizing an increasing market share of freshman and sophomore enrollments.

There has been a relative shift of almost revolutionary proportions in market shares by type of institution during the past two decades. Two-year colleges have gained ground relative to all other institutional types, and they are now enrolling appreciably more than half of all lower division students enrolled in the state's publicly supported colleges.

For Oklahoma City Community College, the state report is of particular interest because it indicates that much of the increased enrollment in community colleges is occurring in urban areas such as Oklahoma City. The trend toward ever-increasing part-time enrollments is also of significance to OKCCC, which had the lowest ratio of FTE to headcount of any public institution of higher education in 1974 and 1979. This figure indicates that OKCCC students are already predominantly part-time.

Despite the fact that Oklahoma is a "have" state as regards resources to

support public education, it is experiencing some of the financial pressure which is acute in virtually all states of the nation. Like most other states, and in particular those with significant energy-related industries, Oklahoma is experiencing a short fall in revenues. Thus, despite the comparatively favorable intermediate and long-term economic pictures, there are fewer dollars to provide the wherewithal for governmental operations such as public higher education. Therefore, every expenditure of public funds is scrutinized carefully and must prove its worth if it is to get the nod over some competing request. Raising taxes is less popular than containing or reducing expenditures unless a clear, strong case can be made for the added tax burden.

Most experts agree that the financial situation confronting public education for the 1984-85 school year is the most critical in the last forty-five years. The gravity of the problem varies among the 50 states with near disaster at hand in the less fortunate states and visible belt tightening the order of the day in those which are comparatively well off. In addition to the shortfall in revenues, several other factors contribute to the precarious position of publicly supported education. When money began to tighten up several years ago, many funding requests were deferred. Some of these accumulated requests, such as those involving maintenance costs for physical facilities, have now reached a critical level. Further delays are likely to compound sharply the ultimate costs.

Among the other negative forces complicating the critical financial picture are: (1) a switch in public priorities which has dropped education from at or near the top to third or fourth place on the priority "totem pole;" (2) a significant drop in federal financial involvement at the state and local levels which necessitates increased state spending or reduction of quality and/or quantity of educational service; (3) public disenchantment with what they regard

as ineffective efforts to trim fat from educational budgets and set up day-to-day operations with an eye toward cost effectiveness. Although secondary education has been a primary target of the media, both elementary and higher education have also been seriously criticized and castigated.

In terms of the present study, the 1980 state report by Dan Hobbs seems almost prescient. It called for a "cooperative and continuous" planning process for Oklahoma higher education; it warned against the potential of unhealthy competition for dwindling students; and it called for increased attention to extension services to meet the increasing needs of adult learners. The findings of the current study have reiterated each of these points.

The Hobbs study also observed that three significant issues had been but lightly covered: the tension between higher education as a system and higher education as a cottage industry; the future impact of instructional technology; and the need to examine the entire structure of higher education in Oklahoma, considering reorganization in a manner "more in keeping with the times." While it goes far beyond the scope of the present study to treat these issues in depth, their pervasive presence suggests that the time for further review and state-level recommendations has arrived.

IV. METROPOLITAN OKLAHOMA CITY: A PROFILE

Concurrent Resolution 1025 is predicated upon the premise that metropolitan Oklahoma City has current and future educational needs that will be unmet without the expansion of postsecondary services. Such needs are identified by examining demographic trends, the economic and employment outlook, and the availability of educational opportunities. This chapter explores these areas.

A. Characteristics of Oklahoma City Population

As the hub of one of the booming sunbelt states, Oklahoma City is moving ahead at a comparatively rapid clip. It is the state center for governmental, industrial, and business activity, and as such, maintains a vital interest in and dependence upon strong educational systems.

The 1980 city census population was 403,213, with population for the Oklahoma City Metropolitan Area standing at 834,088. Unofficial data for 1982 and projections for 1985 show a pattern of continued growth, though the rate of growth is expected to be more stable than the explosive rate of the last two decades. (See Table 1 for a detailed presentation of population trends.) The surrounding metropolitan area is expected to experience the greatest growth in the near future. By 1985, the metro area population is expected to approach the one million mark.

The patterns of growth within the city (outlined in Table 2) are of particular interest to those planning educational expansion. The central city core has continued to lose population, while the heavily populated northwest quadrant has added more population than any other city segment since 1970. Nearly half the citizens of Oklahoma City reside in this quadrant. The southwest quadrant, also heavily populated, is growing at a somewhat slower rate. The southeast quadrant has increased its population by 41.8% since 1970, but still accounts for just 12.3% of the city population. The predominately

Table 1

Trends in Population Growth for the
Oklahoma City Metropolitan Area

People

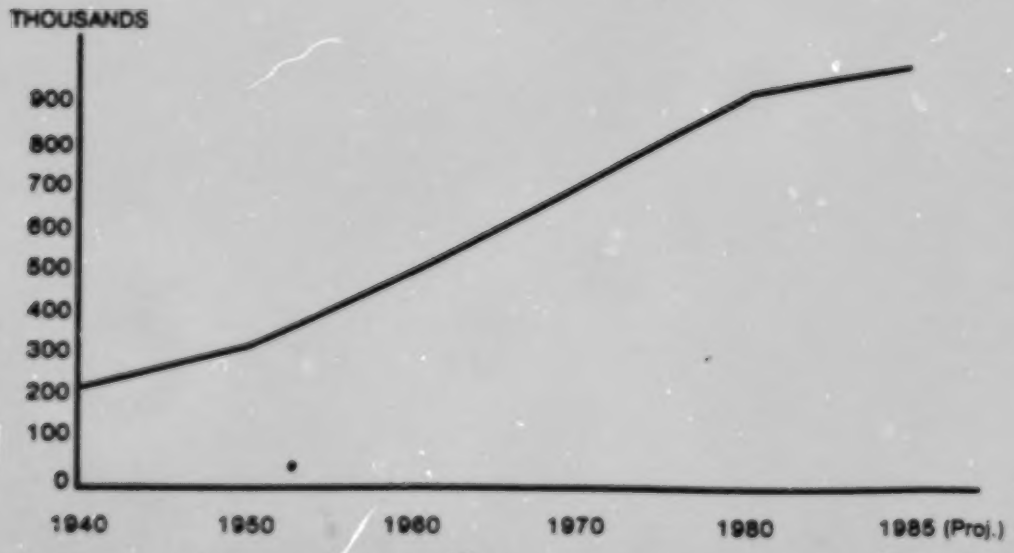
Metropolitan population, 843,700; Corporate population, 407,500.

POPULATION

Year	Corporate Oklahoma City	Oklahoma County	Oklahoma City Metropolitan Area
1890	4,151		
1900	10,037		
1910	64,205	85,232	
1920	91,295	116,307	100,773
1930	185,389	221,738	202,163
1940	204,424	244,159	226,145
1950	243,504	325,352	325,352
1960	324,253	439,506	511,833
1970	368,377	527,717	699,092
1975	370,800	538,100	752,900
1980*	403,213	568,933	834,088
1981**	407,500	571,300	843,700
1985***(Proj.)	421,300	580,000	867,000

Sources: *1980 Public Law Tape 94-171, U.S. Bureau of Census.
**1981 Sales and Marketing Management; Oklahoma City Chamber of Commerce.
***Oklahoma Employment Security Commission.

Metro Population



BEST COPY AVAILABLE

black northeast quadrant has lost population since the 1970 census; it also contains approximately 12% of the city populace.

The postsecondary educational providers in the metropolitan area and their locations are shown in Map 1. Two comprehensive community colleges, Oklahoma City Community College and Rose State College, are assigned "Oklahoma County and surrounding area" as their service area by statute. As the map indicates, both of these institutions are located in southern city quadrants. The juxtaposition of college locations with population centers indicates the basic need for expanded services. Roles of the various postsecondary educational providers will be described in a subsequent section.

The Oklahoma City Metro Area is comparatively youthful, relative to the national scene. Currently, 55% of its population is between 18 and 54. More than 27% of the population is 17 or under. (See Table 3 for detail.) As the Education Table (Table 4) indicates, however, enrollment in elementary and secondary schools in Oklahoma County has declined significantly since 1970. The greatest number and the greatest proportion of citizens in the prime community-college attending age group of 25-34 live in the northwest quadrant (refer to Table 2).

The median schooling for OKC residents is 12.2 years. Most citizens 18 and over have completed high school, but fewer than 20% have completed four years or more of college. (See Table 5.) Thus more than 80% of the Oklahoma City population could potentially benefit from the level of courses offered by community colleges. A healthy median household income of $17,666 indicates resources that would make convenient, low-cost educational opportunities an affordable option, though there are impoverished areas in the city where even the least expensive "opportunity" may be regarded as a luxury.

In its racial and ethnic composition, Oklahoma City is predominately white (more than 300,000) followed a significant number of black residents (more than

Table 2

Population Patterns in Oklahoma City

1980 Census Profile for City Quadrants Plus the Central Core

Population Characteristics*

	Central Core		Northwest		Southwest		Southeast		Northeast	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Population										
1980 (% of Total)	5,658	1.4	184,013	45.6	114,093	28.3	49,445	12.3	50,004	12.4
1970 (% of Total)	10,919	3.0	160,337	43.6	105,376	28.6	34,871	9.5	56,661	15.4
Change in Population	-5,261	-48.2	23,676	14.8	8,717	8.3	14,574	41.8	-6,657	-11.7
Race, 1980										
White	2,459	43.5	163,594	88.9	103,918	91.1	41,911	84.8	10,492	21.0
Black	2,342	41.4	10,848	5.9	2,797	2.5	3,881	7.8	38,834	77.7
American Indian	312	5.5	3,882	2.1	4,126	3.6	1,726	3.5	330	0.7
Other	545	9.6	5,689	3.1	3,252	2.9	1,927	3.9	348	0.7
Ethnicity, 1980										
Spanish Origin	635	11.2	3,942	2.1	4,229	3.7	2,083	4.2	406	0.8
Age, 1980										
0 - 4	311	5.5	12,941	7.0	9,636	8.4	4,878	9.9	4,065	8.1
5 - 14	591	10.5	22,891	12.4	16,451	14.4	9,168	18.5	8,604	17.2
15 - 24	999	17.7	31,500	17.1	21,278	18.6	9,333	18.9	10,483	21.0
25 - 34	811	14.4	35,968	19.5	19,147	16.8	9,119	18.4	6,472	12.9
35 - 44	553	9.8	20,080	10.9	12,562	11.0	6,093	12.3	5,191	10.4
45 - 54	628	11.1	18,438	10.0	12,503	11.0	4,561	9.2	4,963	9.9
55 - 64	684	12.1	18,050	9.8	11,077	9.7	3,203	6.5	4,614	9.2
65 - 74	574	10.2	14,164	7.7	7,351	6.4	2,029	4.1	3,521	7.0
75+	496	8.8	9,999	5.4	4,088	3.6	1,052	2.1	2,091	4.2
School Age 5 - 17	775	13.7	30,635	16.6	21,955	19.2	11,764	23.8	11,979	24.0
Older Age 65+	1,070	18.9	24,163	13.1	11,439	10.0	3,081	6.2	5,612	11.2
Median Age, 1980	37.0		41.4		29.8		26.4		27.7	
Dependency Ratio	61.6		58.3		60.5		66.4		76.4	

*Information provided by The Office of Research and Economic Development, City of Oklahoma City.

BEST COPY AVAILABLE

Table 3

Age Groups: Oklahoma City Metro Area compared to U. S.

AGE GROUPS	OKLAHOMA CITY METRO AREA	U.S
0-11	18.3%	17.4%
12-17	8.9%	9.7%
18-34	32.3%	30.0%
35-54	22.0%	21.8%
55 and over	18.5%	21.1%

Table 4

Education in Oklahoma City Metro Area

Education

Oklahoma County has 138 elementary schools, 63 secondary schools, 13 private schools; median schooling, 12.2 years; 7 vocational-technical schools in the metropolitan area; 7 colleges or universities located in the city with 11 more located nearby, including Oklahoma University and Oklahoma State University.

METRO OKLAHOMA CITY ELEMENTARY AND SECONDARY PUBLIC SCHOOL ENROLLMENT

Year	Canadian County	Cleveland County	Oklahoma County	McClain County	Pottawatomie County
1965	6,334	15,319	119,199		
1970	7,702	19,378	126,550		
1975*	11,152	25,750	116,793	4,701	11,821
1979-80	13,311	26,969	105,250	4,793	11,544
1980-81	13,341	27,502	98,424	4,771	11,437
1981-82	13,751	27,896	102,238	4,780	11,574

Sources: State Department of Education; Oklahoma City Chamber of Commerce.

*In 1973 Metro Area expanded to include 5 counties.

COLLEGES AND UNIVERSITIES

168,748 students attended 43 institutions of higher education in Oklahoma in the fall of 1981. Enrollment in institutions of higher education in or near Oklahoma City for the fall of 1981 was: University of Oklahoma, 21,213; University of Oklahoma Health Services Center, 3,127; Oklahoma State University, 22,423; Oklahoma State University Technical Institute, 3,114; Central State University, 12,004; Oklahoma City University, 3,044; Oklahoma Christian College, 1,612; Oklahoma Baptist University, 1,427; Bethany Nazarene, 1,364; Oscar Rose Junior College, 8,912; South Oklahoma City Junior College, 7,696; El Reno Junior College, 1,399.

Source: Oklahoma State Regents for Higher Education.

1980 Census Information for Oklahoma City

POPULATION

Males	193,223
Females	209,990
Total	403,213

RACE

White	322,374
Black	58,702
American Indian	10,405
Asian	4,167
Other	7,565

AGE

Under 5	31,831
5 to 17	77,112
18 to 64	248,902
65 & Up	45,368
22 - 24	25,672
25 - 29	39,227
30 - 34	32,458
35 - 44	44,728
45 - 54	40,275
55 - 59	20,693
60 - 64	17,657

EDUCATION

Persons 18 and over by year of school completed

Less than High School Graduate	80,276
High School Graduate	105,456
College - 1 to 3 years	59,113
College - 4 years	27,839
College - 5 years or more	22,025

Persons 3 and over enrolled in school

Nursery	5,499
Kindergarten to 8	51,772
High School	23,287
College	21,092

50,000) and much smaller numbers of American Indians and Hispanics. There is a small, but growing, Asian population. Females outnumber males in Oklahoma City, and females are joining the work force in significant numbers. (Refer to Table 5.)

B. Economic and Employment Profile

Oklahoma City is a vital trade and government center, with an expanding manufacturing component. More than 433,000 workers comprise the metro Oklahoma City work force. Table 6 provides details on the employment scene. One of the most impressive figures is the rate of unemployment--a rate that has consistently remained below, and often well below, the national averages. Latest available figures place the unemployment rate at 6.5%.

The stable economy is build on a relatively diverse employment base. Trade, government and service continue to be the major employment areas, but manufacturing and skilled trades are growing apace.

Predicting future employment needs (which can be translated into community college training needs) is always risky. Excellent and detailed data are available to the interested researcher in the Job Development List: 1982-1990 issued by the Research and Planning Office of the Oklahoma Employment Security Commission. The OESC also issues Occupational Employment and Job Openings: 1982-1990, available by county or service delivery area. While it goes beyond the scope of this report to analyze specific job training needs, it should be noted that a 20% increase in employment is predicted for the central service delivery area of which Oklahoma County is a part (nearly 85,000 new jobs by 1990). Adjoining Cleveland County anticipates more than 10,000 new jobs in the same period. Most of the growth is expected in areas for which the subprofessional education provided by community colleges is appropriate.

Often the insight of an informed expert is as helpful as the official

Table 6
Employment in Metro Oklahoma City

Average Employment

Metro Oklahoma City
(In Thousands)

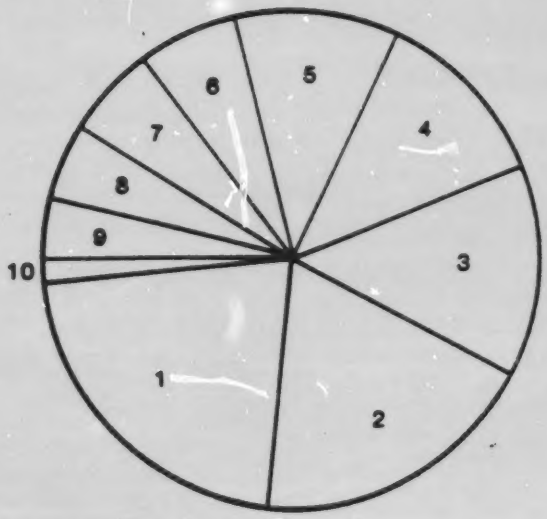
	1960	1970	1975	1980	1981*
Total Non-Agricultural Employment	175.6	266.6	308.0	400.9	422.0
Manufacturing	20.3	39.4	38.9	55.5	56.4
Mining	7.0	7.3	9.2	18.9	26.5
Construction	12.0	14.8	15.9	19.8	21.2
Public Utilities/Transportation	13.2	17.4	19.5	23.7	24.0
Trade	43.2	61.0	75.9	97.9	104.6
Finance, Insurance, etc.	10.6	16.3	19.9	24.9	26.4
Service	22.0	40.0	49.9	71.1	72.9
Government	47.3	69.8	77.8	89.1	90.3
Agriculture	5.8	4.9	5.1	4.9	4.8
Self-Employed, Domestic	27.1	32.6	38.2	46.5	48.3
Idled by Disputes	0	0	.1	0	0
Percent Unemployed	3.6%	3.2%	7.3%	4.4%	3.3%
Total Employed (Annual Average)	208.5	308.1	322.7	404.5	446.1

*Preliminary Information

Source: Oklahoma Employment Security Commission.

Metro Employment 1980

1. Trade 22.0%
2. Government 19.0%
3. Service 15.3%
4. Manufacturing 11.9%
5. Self-employed, etc. 10.2%
6. Mining 5.6%
7. Finance, Ins., etc. 5.5%
8. Public Util./Transp. 5.0%
9. Construction 4.5%
10. Agriculture 1.0%



Source: Oklahoma Employment Security Commission.

projections. Dr. Neil Dikeman, Director of the Oklahoma University Business Research Center, was asked: "Over the next five to ten years, where do you see the industrial and business development occurring in central Oklahoma?" His response follows:

"The firms which will be moving into the region are those associated with light industry. These plants will be ancillary to heavy industry and will function as assembly plants for the most part. High technology will not be a major growth area. Expansion of the existing high tech businesses will be the place where growth will be able to be seen. Examples are the continued use and development of off-line computer technology and Western Electric's use of high tech as it continues to expand. The aviation industry is a part of this light industry. It will expand only if Congress approves the building of the B-1 Bomber. If the B-1 Bomber is built, the aviation business in Tulsa and Tinker Air Force Base in Midwest City will show some rapid growth. If the bomber is not approved, the aviation industry will be in a slowdown pattern.

The most rapid growth will take place in the area of professional and business services. The high growth service areas will include such jobs as computer technicians, lawyers, food service, etc. Food services, especially the franchised fast foods, will continue to grow as long as there continues to be an increase in dual income families.

Retail trade will follow the trends in population growth and increases in expendable income. The growth, due to the above factors, will take place with existing retail firms and there will not be any major increase in the number of firms doing business. A similar phenomenon will occur in the construction industry. With increased people and income, the business will flourish but a decrease in either one or both of these will bring about a drop. Any growth in the construction business will occur in existing firms and new firms will not likely be coming into the area."

This statement contains a significant message for policymakers and managers in higher education. Aligning manpower production with manpower needs must be a very high priority among educational planners.

The numbers can be mind-boggling, but the message they convey, combined with observations of the Oklahoma City scene, leads to the following generalizations: (1) growth in population will continue at a modest but steady rate; (2) manpower needs are diversified and therefore employment is likely to be more stable than in many of the nation's other population centers; (3) the population is somewhat younger than the nation as a whole; (4) higher education has received the support of the public at large and, of equal or greater importance, from the political leaders who allocate resources; and (5) Oklahoma City is destined to receive a substantial share of both opportunities and responsibilities as partners in the technology oriented decade(s) which are ahead for the state and nation.

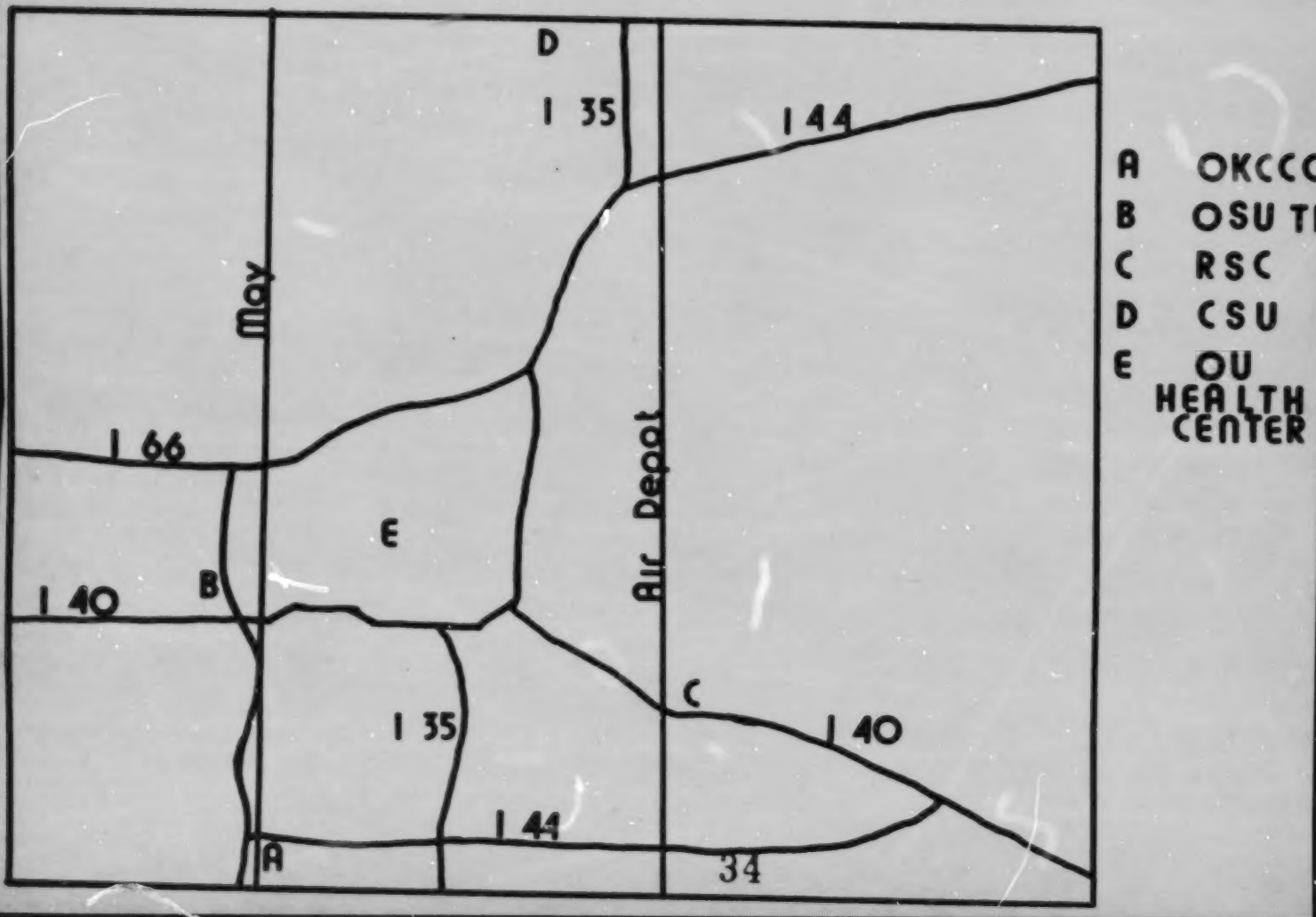
C. Availability of Postsecondary Education

As Map 1 illustrates, there is not a shortage of postsecondary educational providers in the metro Oklahoma City area. The "need" that exists relates to the type and location of educational opportunities available. This section will examine briefly existing educational institutions in the metro Oklahoma City which provide some or all of the services offered by a comprehensive community college. Oklahoma City Community College is treated separately and in considerably more detail in a subsequent chapter.

Private institutions have been omitted from this treatment. Three private colleges--Oklahoma City University, Oklahoma Christian College, and Bethany Nazarene College--enrolled a total of nearly 6,000 students in Fall 1983. Their contribution is significant, but their role and emphases differ considerably from that of the community college, and they operate outside the policy control

Map 1

Postsecondary Educational Providers in Oklahoma County



of the legislature. Certainly any decisions which may involve expansion of publicly supported colleges should carefully examine the probable impact on the private sector. As CR 1025 clearly states, the focus of the study should be on cost effective methods for the delivery of educational services, eliminations of undesirable duplication of service and examination of a metropolitan based system of delivery of comprehensive community college offerings.

Oklahoma University, the state system flagship university located in Norman, is not included in this review, although it offers some extension courses in Oklahoma City. The Oklahoma University Health Science Center,a highly specialized graduate institution, is likewise not included.

In addition to Oklahoma City Community College, there are three other public providers of postsecondary education.

Rose State College (RSC), located in Midwest City in the southeastern portion of metro Oklahoma City, is a comprehensive community college which enrolled more than 10,000 students in Fall 1983. It offers two-year degrees in occupational programs and transferable credits towards a bachelor's degree. Tuition and fees average $355 per semester. Rose is offering some courses via electronic media (it has the second highest enrollments via TV of any college in the state). It provides extensive services to Tinker Air Force Base but, as yet, offers few other extension services.

Oklahoma State University-Technical Institute (OSU-TI) is centrally located in Oklahoma City, offering two-year associate degrees and one-year certificate programs in technical fields and preparation for further technical study. A branch campus of Oklahoma State University, OSU-TI enrolled 2880 students in Fall 1983. Tuition and fees average $648 per semester.

Central State University (CSU) is located north of Oklahoma City in Edmond. It offers four-year degrees and master's degree programs. Over 13,000 students were enrolled in Fall 1983, paying an average of $535 per semester for tuition

Table 7

Programs Offered by OKCCC, RSC, and OSU-TI

Associate in Arts

	OKCCC	RSC	OSU-TI
Child Development	X	X	
Communications			
Journalism Emphasis	X	X	
Speech Emphasis	X	X	
Radio/TV Broadcast			
Corrections	X	X	
History	X	X	
Humanities			
Film Studies Emphasis			
General Hum. Emphasis		X	
Literature Emphasis			
Philosophy Emphasis			
Modern Language	X		
Foreign Language		X	
Music	X	X	
Political Science/ Pre-Law	X	X	
Psychology	X	X	
Rec. Leadership	X		
Public Adm.		X	
Sociology	X	X	
Theatre Arts	X	X	
Visual Arts	X	X	
Native Am. Studies		X	
Pre-Dentistry	X	X	

(Table 7 - continued)

	OKCCC	RSC	OSU-TI
Pre-Education	X	X	
Pre-Medicine	X	X	
Pre-Nursing	X	X	
Pre-Pharmacy	X	X	
English		X	
Associate in Science			
Accounting			
Business	X	X	
Mathematics	X	X	
Pre-Engineering	X	X	
Science			
Biology Emphasis	X	X	
Chemistry Emphasis	X	X	
Physics Emphasis	X	X	
Associate in Technology			
Accounting Associate	X	X	
Automotive Technology	X		
Banking & Finance (C)	X	X	
Child Development (C)	X	X	
Commercial Art	X	X	
Construction Technology	X		X(C)
Corrections (C)	X		
Credit Union Mgt.	X		
Data Processing	X	X	X
Business Adm.		X	
Consumer Economics		X	

(Table 7 - continued)

	OKCCC	RSC	OSU-TI
Court Reporting		X	
Drafting & Design (C)			
Arch. Design Emphasis	X		
Civil Design Emphasis			X
Computer-Aided Des. Emp.			
Machine Des. Emphasis			
Petro. Des. Emphasis			
Industrial		X	X (C)
Electronics	X	X	X
Emerg. Med. Tech. (C)	X		
Food Service Mgt. (c)	X		
Gerontology (C)	X		
Ind. Electronics	X		
Ins. Management			
Life Mgt. Emphasis	X		
Chartered Life Under.			
Labor Studies	X		
Machine Technology (C)			
Tooling Emphasis	X		
Prod. Emphasis			
Engineering Technology			X
Mfg. Technology (C)	X		
Mass Media Comm. (C)			
Journalism Emphasis	X		
Instr. Media Emphasis	X		
Photography Emphasis	X		
Radio Brdcst. Emphasis	X	X	
TV Brdcst. Emphasis	X	X	
Postal Management		X	
Legal Assistant		X	
Logistics Mid-Management		X	
Office Adm. (C)		X	
Metal Fab. Technology	X		

(Table 7 - continued)

	OKCCC	RSC	OSU-TI
Mdse. Management (C)	X		
Fashion Merchandising		X	
Mid-Management	X	X	
Nursing	X	X	X
OT - TR	X		
Phy. Therapist Tech.	X		
Printing Technology (C)			
General Emphasis	X		
Pre-Press Emphasis	X		
Press Emphasis	X		
Printing Mgt. Emphasis	X		
Real Estate (C)	X	X	
Rec. Leadership (C)	X		
Sec. Science			
Gen. Office Asst. (C only)	X		
General Emphasis	X	X	
Legal Emphasis	X		
Inform. Processor Emp.	X	X	
Sec. and Loss Prev. (C)	X		
Surgical Tech. (C only)	X		
Welding Tech (C)	X		
Purchasing & Contracting		X	
Electromechanical Tech.		X	
Quality Control Tech (C)		X	
Environmental Science (Wastewater)		X	
Aviation Professional			
Pilot Mid-Management		X	
Dental Assistant		X	
Hygiene		X	
Lab. Tech.		X	
Home Economics		X	

(Table 7 - continued)

	OKCCC	RSC	OSU-TI
Hisologic Tech.		X	
Medical Lab Tech.		X	
Mental Health Tech.		X	
Radiologic Tech.		X	
Respiratory Therapist		X	
Respiratory Therapist Tech (C)		X	
Art & Marketing		X	
Bilingual Teachers Aid (C)		X	
Country/Western Music (C)		X	
Library Tech Asst. (C)		X	
Horticulture Tech (C)			X
Transport. & Traffic Mgt. Tech			X
Computer Programing			
Accting (C)			X
Business			X
Scientific			X
Computer Oper. Mgt.			X
Police Science (C)			X
Surveying Tech			X
Civil Technology			X
Fire Prev. Tech			X
Oil & Gas Field Mgt.			X
Instrumentation Tech			X
Technical Writing (C)			X
Physical Ed		X	

and fees.

Table 7 indicates the programs offered by Oklahoma City Community College, Rose State College, and OSU-TI. The Table is helpful in indicating potential duplication and potential need, but it should be noted that subtle differences in the way program titles are reported make good comparisons difficult. What, for example, is the difference between "Modern Language" at OKCCC and "Foreign Language" at RSC? A better-defined system for reporting program offerings would assist those at the state and local levels in identifying need and duplication.

Historical Geographic Service Areas: A Report on Institutional Selection by Students in Oklahoma Higher Education, presented to the Oklahoma State Regents in June 1984, is most helpful when examining postsecondary institutions selected by residents of the metro Oklahoma City area. The interested reader is referred to this publication for more detailed data than that which is presented here.

Tables 8 and 9 are extracted from the service area report, and they represent averages from 1979-1983 in order to minimize anomalies.

Table 8

Average Annual First-Time Freshmen: Numerical Enrollments from Oklahoma and Cleveland Counties

County/Institution	OU	OSU	CSU	RSC	OKCCC	Total*
Oklahoma	659.0	635.6	902.6	1820.6	1413.2	6217.2
Cleveland	470.8	59.8	24.2	238.8	333.2	1240.8

*Note: Columns do not equal total because only enrollments at schools of interest are included.

The two comprehensive community colleges enroll the greatest number of freshmen from Oklahoma County (more than half the annualized total). The importance of proximity is seen in CSU's enrollments, which are heavy from convenient Oklahoma County and light from Cleveland County.

The percentage picture presented in Table 9 reveals the primary postsecondary education role played by the comprehensive community colleges.

Table 9

Average Annual First-Time Freshmen: % Enrollments from Oklahoma and Cleveland Counties*

County/Institution	OU	OSU	CSU	RSC	OKCCC
Oklahoma	10.5	10.2	14.5	29.2	22.7
Cleveland	37.9	4.8	1.9	19.2	26.8

*Note: % will not equal 100% because only enrollments at schools of interest are included.

Citizens in the metro Oklahoma City area attend college at a substantially higher rate than the state average. Their voracious appetite for postsecondary education contributes to the growth and well-being of the area. More detailed information on student characteristics is available in the Student Data Report: Oklahoma Higher Education, 1982-83, submitted to the Oklahoma State Regents for Higher Education in December 1983.

The following chapter looks at Oklahoma City Community College as a current and potential provider of postsecondary educational services throughout the metro Oklahoma City area.

V. OKLAHOMA CITY COMMUNITY COLLEGE: CURRENT STATUS, FUTURE PROSPECTS

This study was commissioned by the Board of Regents of Oklahoma City Community College. This chapter examines in some depth the current status at OKCCC and examines considerations for the future, particularly in regard to the extension of services. Much of this chapter will be familiar to Board members, but each piece is part of the mosaic to be considered as OKCCC positions itself for the future.

A. Organizational Overview

1. History

Oklahoma City Community College had its beginning on March 20, 1969, when a committee of the South Oklahoma City Chamber of Commerce was created to circulate petitions asking the Oklahoma State Regents for Higher Education to approve establishment of a junior college in the area. Their successful initiative resulted in the formation of a junior college district with appointed trustees a year later.

After careful and intense planning, construction on the first building began in January 1972. Classes convened in September 1972, with enrollments of 1049 students.

In 1973, action was taken for South Oklahoma City Junior College to become part of the State System of Higher Education. In April 1974, SOCJC became a full-fledged member of the state system, with its service area defined as "Oklahoma County and surrounding area." The college's name was changed to Oklahoma City Community College in 1983 to reflect the realization of the original promise to serve all metropolitan Oklahoma City. Oklahoma City Community College is accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools.

2. Governance and Organization

The Oklahoma State Regents for Higher Education serve as the coordinating board of colleges and universities for the Oklahoma State System of Higher Education. The State System was created in 1941 as a unified state system to provide coordination for public higher education, and where appropriate, for the private sector.

The State Regents provide state-level coordination of functions, curricula, educational standards, and finance for member institutions in the State System. The nine members of the State Board are appointed by the governor and confirmed by the senate.

Local governance for Oklahoma City Community College is provided by a seven-member Board of Regents appointed by the governor and confirmed by the State Senate. These Regents provide management, supervision, and control of the college.

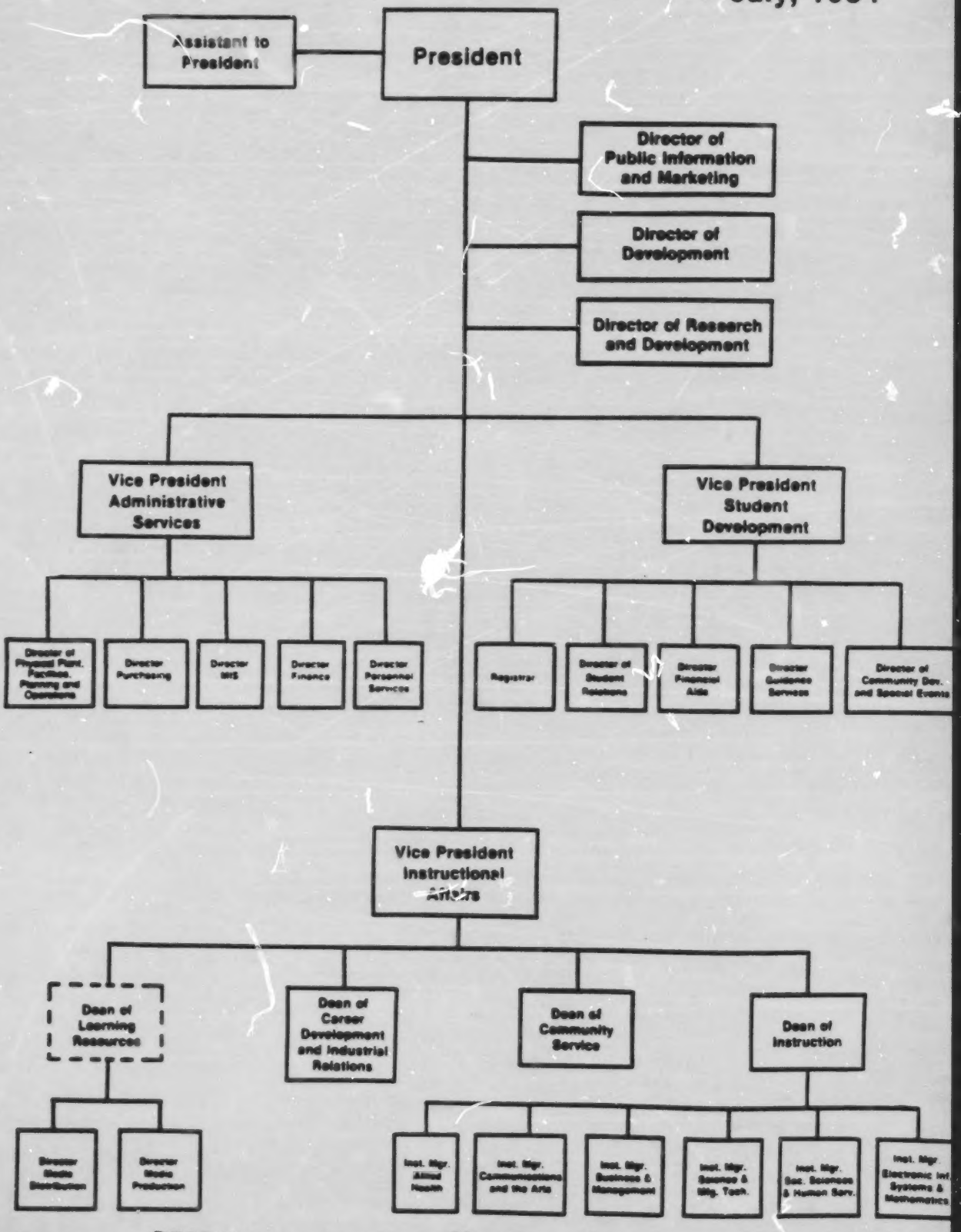
Administration of the college is carried out through the organizational structure set out in Figure 1.

3. Functions and Philosophy

The functions of Oklahoma City Community College are those of a comprehensive community college; namely, to make available to residents of the college service area educational opportunities of less than baccalaureate length. The specific functions are:

- To prepare students for entry into specified technical and service careers or to provide students recurrent education for those careers.
- To prepare students for transfer to baccalaureate degree-granting institutions.
- To provide special interest, continuing education and avocational programs for persons in the community.

Figure 1
Organization of Oklahoma City Community College **July, 1984**


Assistant to President
President
Director of Public Information and Marketing
Director of Development
Director of Research and Development
Vice President Administrative Services
Vice President Student Development
Director of Physical Plant, Facilities, Planning and Operations
Director Purchasing
Director MIS
Director Finance
Director Personnel Services
Registrar
Director of Student Relations
Director Financial Aids
Director Guidance Services
Director of Community Dev. and Special Events
Vice President Instructional Affairs
Dean of Learning Resources
Dean of Career Development and Industrial Relations
Dean of Community Service
Dean of Instruction
Director Media Distribution
Director Media Production
Inst. Mgr. Allied Health
Inst. Mgr. Communications and the Arts
Inst. Mgr. Business & Management
Inst. Mgr. Science & Mtg. Tech.
Inst. Mgr. Soc. Sciences & Human Serv.
Inst. Mgr. Electronic Inf. Systems & Mathematics

BEST COPY AVAILABLE

- To provide opportunities for and encourage the development of critical, creative thinking and effective communication.
- To provide opportunities for and encourage the development of the basic skills necessary for the achievement of specified educational and life goals.
- To provide programs and services which assist students in identifying and pursuing realistic educational, career and life goals.
- To enhance the educational, economic, social and cultural life of the community.

Educational Philosophy--

Oklahoma City Community College is a community college, sensitive to the needs and aspirations of the community it serves. This sensitivity is demonstrated by its commitment to accessibility, comprehensiveness, flexibility, quality and accountability. The philosophy of the college is summarized in the following paragraphs.

Accessibility--

The college provides equal educational opportunities for and actively seeks prospective students regardless of personal, economic or social conditions. Within available resources, it seeks to deliver to persons in its service area learning experiences in the manner they are needed, where they are needed and when they are needed. Its open door admissions policy makes the degree and certificate programs available to any person of post high school age and, under certain conditions, to high school seniors.

The college's environments are dedicated to learning and open to those who desire to learn, seeking to engender in students the importance of learning as a lifelong process. The college commits itself to being accessible throughout that process.

Comprehensiveness--

After analyzing community needs, the college selects, on a priority basis, the programs and services it offers. The college remains comprehensive by offering a wide variety of study and career options for its students, including preparatory, immediate job entry, developmental and community service programs.

Flexibility--

The college maintains maximum flexibility in the determination and presentation of its programs, phasing out and/or initiating new ones in keeping with the changing needs of the community. The college will seek to maintain the flexibility to accommodate individual differences in learning rates, aptitudes, prior knowledge and changes in educational goals.

Quality--

The college's programs, services and environments are learner and learning centered. Students are encouraged to develop fully their capabilities and are assisted in setting realistic educational goals for themselves. This commitment requires excellence of personnel, programs and facilities and must be measured by strict accountability.

Accountability--

Oklahoma City Community College accepts responsibility for the quality and quantity of its output. In the belief that every student deserves the opportunity to succeed, the college creates environments in which each student may, through the student's own endeavors, be successful. Student learning objectives and performance criteria are established for each course. Objectives and performance criteria are established for each of the college's programs and employees, and for the college itself. The successes of students, employees, programs, and the college, are evaluated against these objectives.

The college's evaluation process is systematic and ongoing, involving its students, faculty, staff, administrators, regents and the public. Periodic reports are made to the public, to which the college is accountable.

4. Physical Facilities

Oklahoma City Community College's 143 acre campus is located in the southwestern section of Oklahoma City. Its dark red, three story buildings have become a landmark in the area. The main building houses most administrative offices as well as offices and classrooms for the Institute of Allied Health, Institute of Business and Management, and Institute of Science and Manufacturing Technology. The Learning Resources Center, media production facilities, food service area, book store, and lounge and recreation areas are also here.

The Career Learning Center houses laboratories for construction, welding, metal, machine and production technologies.

The Arts and Humanities building contains classrooms and offices for the Institute of Social Science and Human Services and the Institute of Communications and the Arts. A 300-seat theater contains a rehearsal room, dressing room and glassed-in lobby.

The technology building contains classrooms, offices and laboratories for the Institute of Electronic Information Systems and Mathematics - Data processing, drafting and design, and electronics labs.

5. Program Offerings

Oklahoma City Community College offers two types of associate degree programs (Preparatory and Immediate Job Entry), and a number of certificates of mastery.

A Preparatory Program is one that is pursued by a student wishing to continue studies at a senior institution after leaving Oklahoma City Community College. Upon completion of the specified degree requirements, the student is

awarded an Associate in Arts Degree, an Associate in Science Degree or an Associate of Diversified Studies Degree.

An Immediate Job Entry Program is designed to prepare a student to enter the world of work upon successful completion of the curriculum. Upon fulfillment of the specified degree requirements, the student is awarded an Associate in Technology Degree.

Frequently students wish to complete a specified curriculum pattern having fewer than 60 credits, which will enable them to meet certification requirements of various state agencies or other external certifying groups. As a result, certificate programs are offered in a number of career areas. In addition, for personal or other professional reasons, students may wish to select a program of shorter duration than the associate degree.

The Associate in Arts or Sciences is offered in the following areas:

Associate in Arts

Child Development
Communications
- Journalism Emphasis
- Speech Emphasis
- Radio/Television Broadcasting Emphasis

Corrections
History
Humanities
- Film Studies Emphasis
- General Humanities Emphasis
- Literature Emphasis
- Philosophy Emphasis

Modern Language
Music
Political Science/Pre-Law
Psychology
Recreational Leadership
Sociology
Theatre Arts
Visual Arts

Associate in Science

Accounting
Business
Mathematics
Pre-Engineering
Science
- Biology Emphasis
- Chemistry Emphasis
- Physics Emphasis

The Associate in Technology is offered in 32 areas. The specific degree title for each Associate in Technology program has been assigned in compliance with the Oklahoma State Regents for Higher Education guidelines. The appropriate degree title is presented under the particular program in the Curriculum Pattern section of this Bulletin. An Associate Degree program which has an allied Certificate of Mastery Program is identified in the following listing by the letter (C) after the program title.

Accounting Associate
Automotive Technology
Banking & Finance (C)
Child Development (C)
Commercial Art
Construction Technology
Corrections (C)
Credit Union Management
Data Processing
Drafting & Design (C)
- Architectural Design Emphasis
- Civil Design Emphasis
- Computer-Aided Design Emphasis
- Machine Design Emphasis

Electronics
Emergency Medical Technician (C)
Food Service Management (C)
Gerontology (C)
Industrial Electronics
Insurance Management
- Life Management Emphasis
- Chartered Life Underwriter's Emphasis

Labor Studies
Machine Technology (C)
- Tooling Emphasis
- Production Emphasis

Manufacturing Technology (C)

Mass Media Communications (C)
- Journalism Emphasis
- Instructional Media Emphasis
- Photography Emphasis
- Radio Broadcasting Emphasis
- Television Broadcasting Emphasis

Metal Fabrication Technology
Merchandising Management (C)
Mid-Management
Nursing
Occupational Therapy-Therapeutic Recreation
Physical Therapist Technician
Printing Technology (C)
- General Emphasis
- Prepress Emphasis
- Press Emphasis
- Printing Management Emphasis

Real Estate (C)
Recreational Leadership (C)
Secretarial Science
- General Office Assistant (C only)
- General Emphasis
- Legal Emphasis
- Information Processor Emphasis

Security and Loss Prevention (C)
Surgical Technology (C only)
Welding Technology (C)

6. Financial Profile

Educational and General Revenues for OKCCC were $10,035,215 in 1983-84, a decrease of $1,041,853 from 1982-83. The primary reasons for the decrease were a reduction in state appropriations of $640,923 and the fact that no local tax revenues were deposited to the Educational and General Revenue accounts in 1983-84. Anticipated revenues for 1984-85 are $10,113,574. The primary source of revenues is state appropriations. State appropriations for 1983-84 were $8,290,296 which was $640,923 less than in 1982-83. For 1984-85, state appropriations are anticipated to be $8,358,749. Table 10 shows state appropriations per full-time equivalent student.

TABLE 10

REVENUES FROM STATE APPROPRIATIONS PER FULL-TIME EQUIVALENT STUDENT

For 1982-83, 1983-84 AND 1984-85

	1982-83 ACTUAL	1983-84 ACTUAL	1984-85 ANTICIPATED
State Appropriations	$8,931,219	$8,290,296	$8,358,749
Full-Time Equivalent Enrollment	3,932	3,887	4,050
Average State Appropriations Per Full-Time Equivalent Student	2,271	2,133	2,064

The table indicates a decrease of $138 in state appropriations per full-time equivalent student in 1983-84 from 1982-83. With the anticipated increase in enrollment and with state appropriations remaining almost constant, a decrease of $69 is anticipated in 1984-85 from the previous year.

Educational and General Expenditures in 1983-84 were $9,777,222 which was $136,914 less than in 1982-83. The budget for 1984-85 is $11,200,000 which exceeds 1983-84 by $1,422,788. The increase in the budget will be funded primarily from the reserve that has built up over several years of operations. Table 11 shows the Educational and General Expenditures per full-time equivalent student.

TABLE 11

EDUCATIONAL AND GENERAL EXPENDITURES
PER FULL-TIME EQUIVALENT STUDENT
FOR 1982-83, 1983-84 AND 1984-85

	1982-83 ACTUAL	1983-84 ACTUAL	1984-85 BUDGETED
Educational and General Expenditures	$9,914,136	$9,777,222	$11,200,000
Full-Time Equivalent Enrollment	3,932	3,887	4,050
Average E & G Expenditures Per Full-Time Equivalent Student	2,521	2,515	2,765

There was a slight decrease from 1982-83 to 1983-84 in the average Educational and General expenditures per full-time equivalent student. An increase in expenditures of $250 per full-time equivalent student is anticipated in 1984-85 over 1983-84.

Figure 2 illustrates the distribution of expenditures by functions for 1983-84.

B. Student Characteristics

During 1983-84, the average age of students attending Oklahoma City Community College was 30, the same average as in 1982-83. Nearly 60 percent of the students are females. Most of the students--nearly 85 percent--are attending OKCCC part-time (12 or fewer hours). More than 86 percent of the students are white, and nearly all of them are Oklahoma residents.

Trends in student credit headcount enrollment are set out in Figure 3.

Figure 2
Educational and General Expenditures
by Function

Educational and General Expenditures

Educational and General Expenditures for 1983-84 totalled $9,777,222. 84.8 percent of that amount was generated through state-appropriated funds; the remainder was generated through revolving funds.

The chart below illustrates the distribution of those expenditures by function.

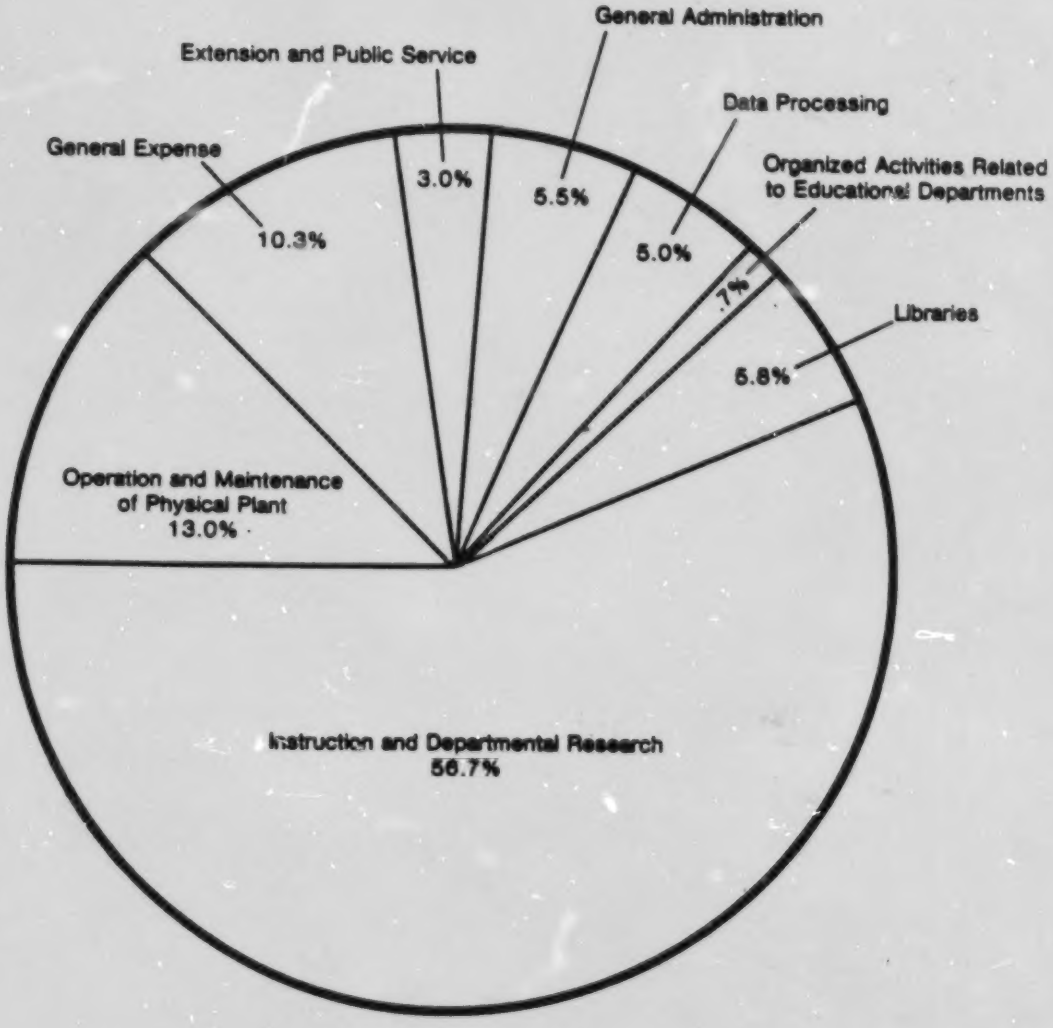
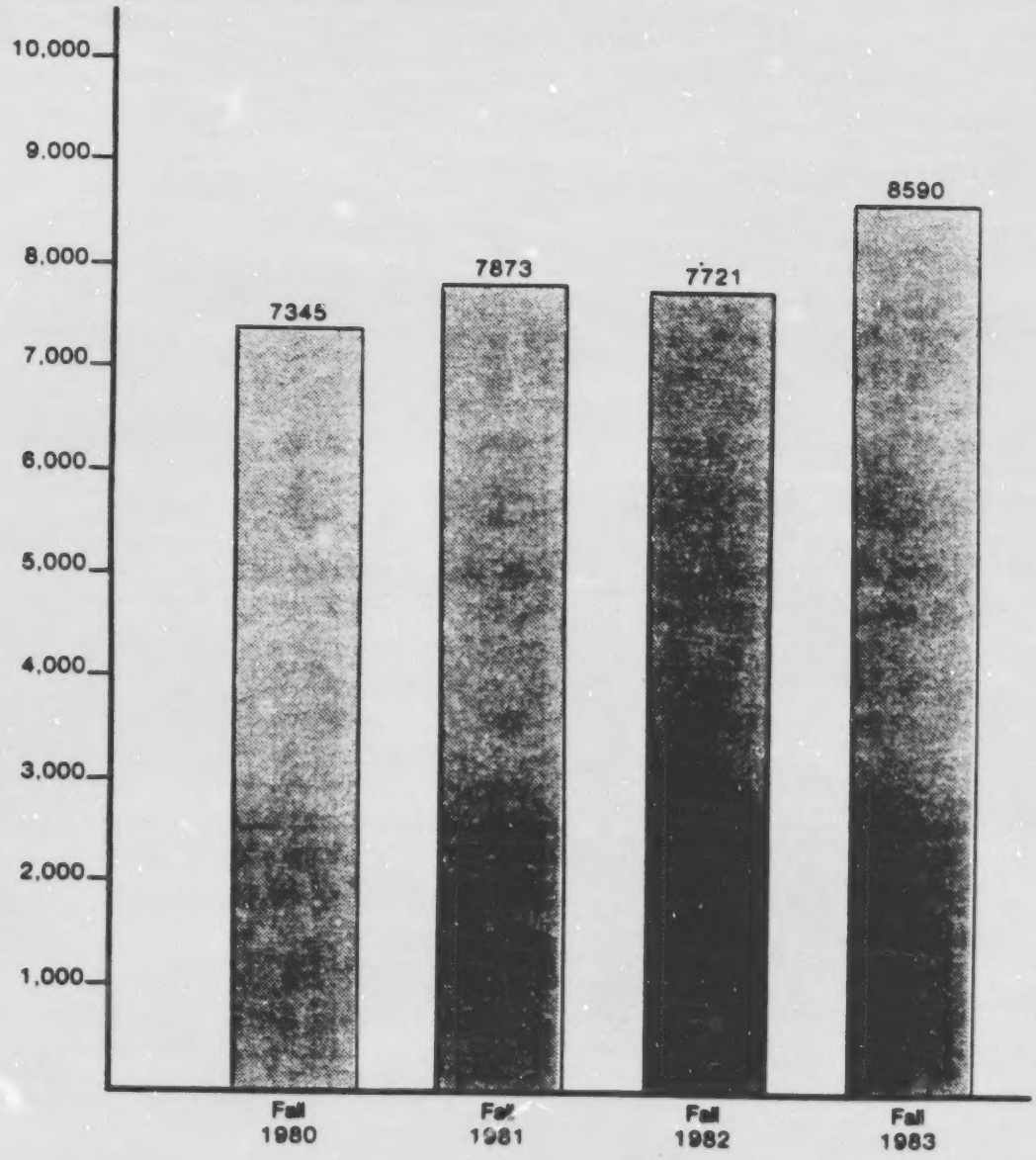


Figure 3

OKCCC Student Credit Headcount Enrollment

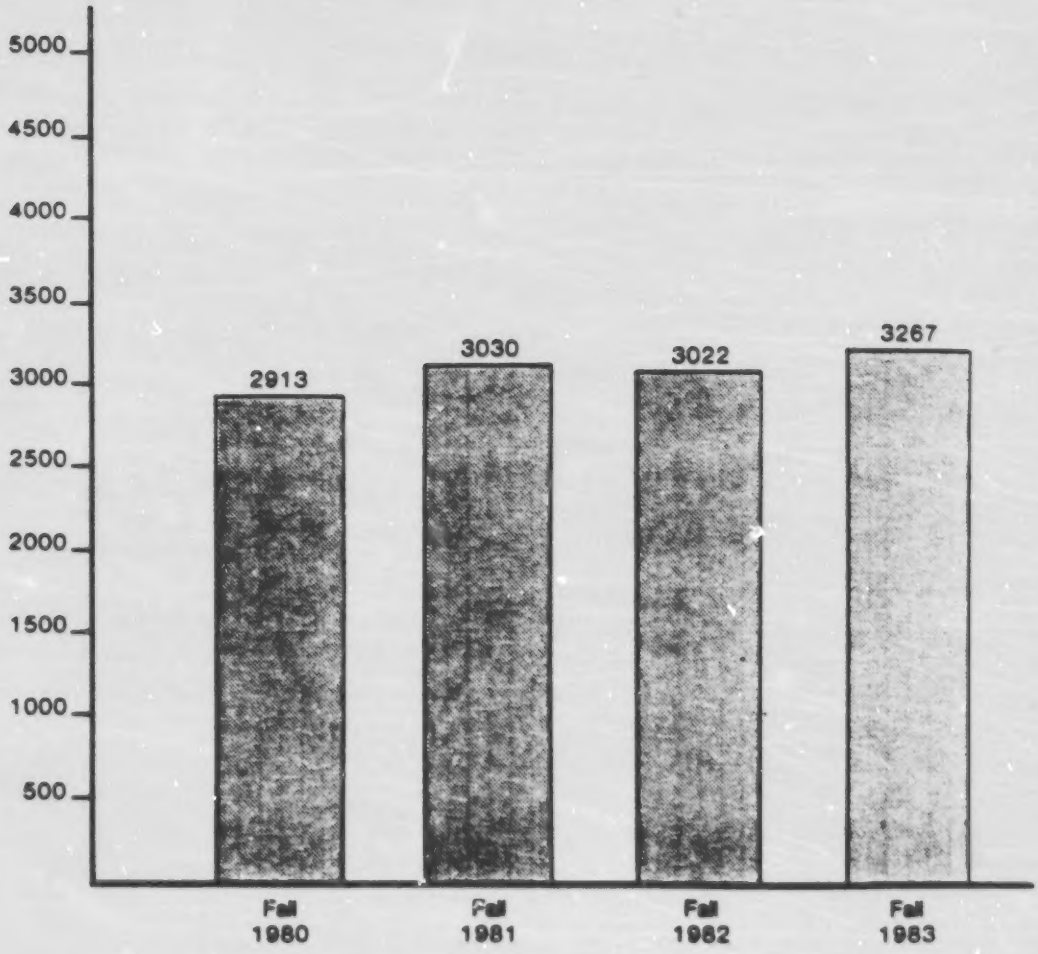
Student Credit Headcount Enrollment
Fall 1980 to Fall 1983



BEST COPY AVAILABLE

Figure 4

OKCCC Full-Time Equivalencies: 1980-1983



BEST COPY AVAILABLE

Trends in full-time equivalency are shown in Figure 4. Given the high proportion of part-time enrollees, the relatively low ratio of FTE to headcount is to be expected.

The distribution of enrollments in day and evening classes is also of interest. The number of evening students is more than double the number of day students. (See Table 12 for detail.) Such an attendance pattern results in nearly 100% room utilization on the OKCCC campus between 5:30 and 8:30 p.m. Evening is "prime time" at OKCCC.

The fact that OKCCC students fit the 1980's profile of older, working, part-time students is reiterated by the fact that of 8590 students enrolled in Fall 1983, only 381 were 1983 high school graduates or seniors. Students at OKCCC often have interrupted their educations for job or family obligations.

Table 13 sets forth the enrollment trends for the last four years by program area. Technical program enrollments are strong, particularly in business, service, and medical-related areas. Enrollment in college preparatory programs is also strongest in the business areas.

Students come to OKCCC from Oklahoma County and from several surrounding counties. Map 2, from the Historical Services Area study, shows counties in which ten percent or more entering freshmen select OKCCC.

Table 14 shows the rate at which metro Oklahoma City area residents participate in the educational offerings of OKCCC. Such esoteric data is of special interest to an institution wishing to target its marketing efforts. It reveals good participation in the southwest quadrant in which it is located. (Participation rates of two to three percent are generally considered "good" for community colleges.) However, the picture of participation in the northern quadrants is very different. To gain an accurate picture, participation rates for all postsecondary educational institutions in Oklahoma County would be needed. But the OKCCC data shows that some parts of its statutorily defined

Table 12

Distribution of Headcount and Credit Hours
in Day and Night Classes

	Headcount				Credit Hours			
	Day	Night	Both	Arr	Day	Night	Both	Arr
Fall 80	1628	4622	978	117	11,982	20,018	10,907	296
Sp 81	1805	4734	1188	202	12,075	19,148	13,722	519
Fall 81	1859	4815	1044	155	13,272	20,524	11,225	421
Sp 82	1888	4696	1170	237	13,035	20,080	12,973	656
Fall 82	1858	4662	953	247	13,623	20,739	10,239	735
Sp 83	2390	5216	1221	400	15,456	22,459	10,129	1139
Fall 83	1863	5352	1082	293	13,057	23,498	11,637	805
Sp 84	1740	5073	1108	414	12,679	21,328	12,444	1165

Table 13

OKCCC Enrollment by Program: 1980-1983

JOB PREP - Programs	ENROLLMENT Fall 1980	Fall 1981	Fall 1982	Fall 1983
Technology				
Accounting Associate	390	397	426	400
Automotive Technology	51	35	39	60
Banking & Finance	599	695	628	860
Child Development	36	50	48	64
Commercial Art	193	166	159	203
Construction Technology	70	60	79	83
Corrections	182	119	47	52
Pre-Corrections	7	6	9	13
Credit Union Management	28	5	3	3
Data Processing	69	274	581	789
Drafting & Design	98	113	100	102
Electronics	282	309	277	295
Emergency Medical Technology	211	210	212	282
Food Service Management	19	32	6	2
Gerontology	20	16	33	23
Industrial Electronics	9	16	16	6
Insurance Management	139	171	98	51
Labor Studies	0	0	0	1
Machine Technology	55	77	50	36
Production Technology	16	18	12	12
Elec. Srv. Technician	0	0	0	3
Industrial Health/Safety	0	0	1	0

(Table 13 - continued)

	Fall 1980	Fall 1981	Fall 1982	Fall 1983
Maintenance Tech	0	0	4	3
Manufacturing Technology	0	0	0	0
Mass Media Communications	0	96	112	110
Broadcasting	112	0	0	0
Radio/TV Repair	1	4	3	0
Metal Fabrication Technology	32	11	19	22
Merchandising Management				
Fashion Merchandising	34	15	0	0
Retail Merchandising	13	25	19	28
Mid-Management	131	134	131	151
Nursing	359	403	466	495
Medical Records Technician	11	14	7	2
Long Term Adm.	1	0	0	0
Occupational Therapy Therapeutic Recreation	62	67	66	51
Physical Therapist Tech	0	0	45	79
Printing Technology	40	48	49	56
Real Estate	87	174	156	150
Recreational Leadership	546	397	328	373
Pre-Rec. Leadership	2	0	0	0
Secretarial Science	276	332	302	343
Security & Loss Prevention	0	7	3	3
Surgical Technology	63	57	32	46
Welding Technology	53	85	50	45

(Table 13 - continued)

COLLEGE PREP - ENROLLMENT

Programs	Fall 1980	Fall 1981	Fall 1982	Fall 1983
Arts				
Child Development	36	50	48	64
Communications	0	59	102	108
Speech Communications	19	0	0	0
Corrections	182	119	47	52
Pre-Corrections	7	6	9	13
History	54	32	43	49
Humanities	0	0	31	47
Literature	80	0	0	0
Modern Languages	105	78	80	111
Music	112	111	111	128
Political Science/Pre/Law	62	63	59	74
Psychology	387	324	333	347
Recreational Leadership	373	328	397	546
Pre-Recreational Leaderahip	0	0	0	2
Sociology	87	83	79	105
Theatre Arts	36	27	19	19
Visual Arts	93	85	61	44
Sciences				
Accounting	390	397	426	400
Pre-Accounting	0	0	0	42

(Table 13 - continued)

	Fall 1980	Fall 1981	Fall 1982	Fall 1983
Business	1555	1713	1410	1334
General Office Assistant	10	13	6	6
Mathematics	87	87	116	121
Pre-Engineering	281	262	262	251
Science	265	275	301	211
Solar Energy	0	0	0	1

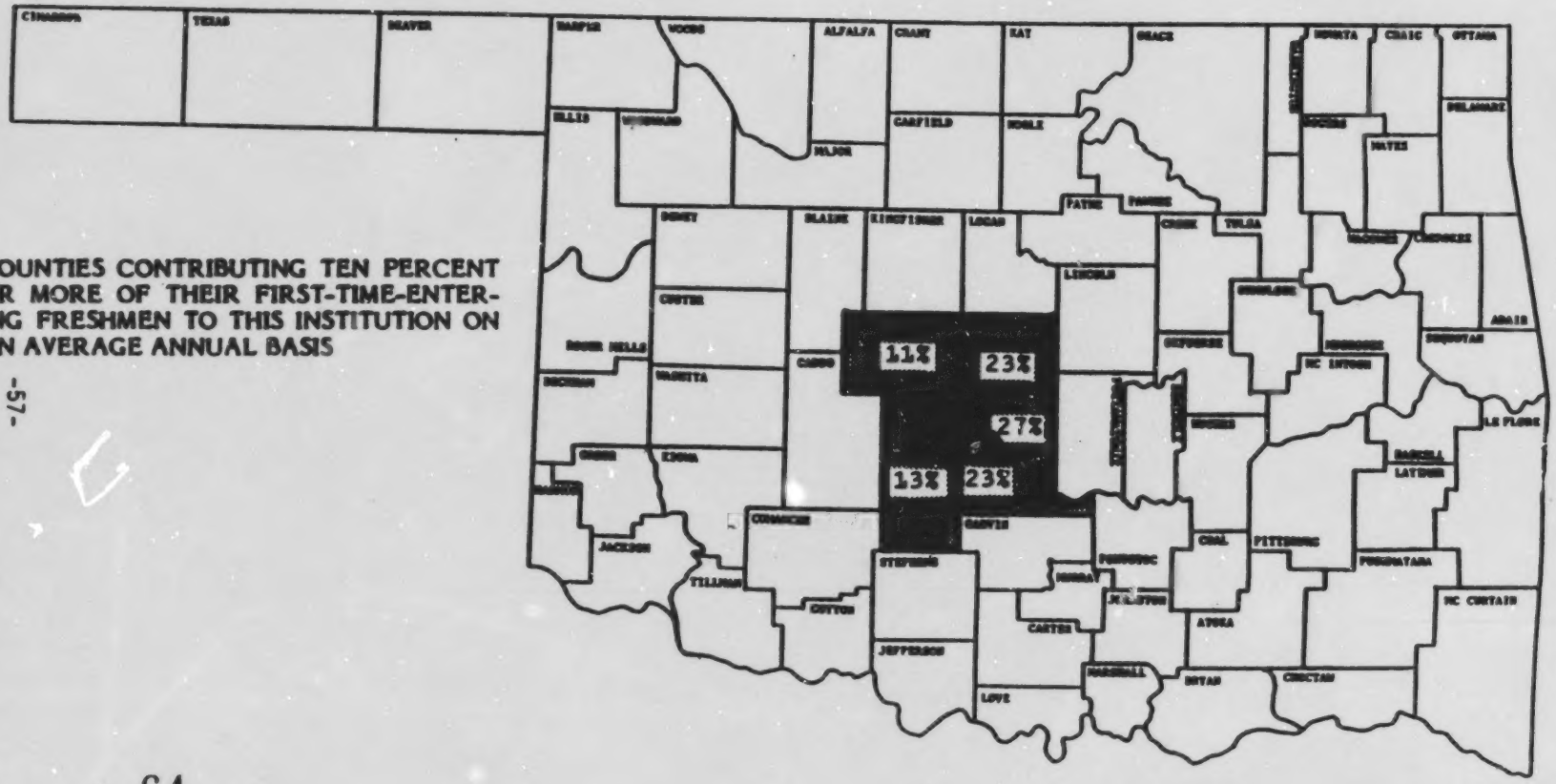
Table 14

Participation Rate at OKCCC by
Zip Code in the Metropolitan Oklahoma City Area

Zip Code	Population	Enrollment Fall 1983	Participation Rate	
73142	2,919	10	.0034	
73132	24,180	277	.0115	
73122	31,782	145	.0046	
73127	33,668	345	.0102	
73102	2,551	19	.0075	
73103	6,595	75	.0114	
73106	12,154	213	.0175	Northwest
73107	26,308	302	.0115	
73112	29,541	285	.0097	
73118	15,061	155	.0103	
73116	11,041	55	.0050	
73114	13,571	83	.0061	
73120	27,237	141	.0052	
73134	1,580	1	.0006	
Bethany		244		
73128	2,810	33	.0117	
73179	1,678	13	.0078	
73169	1,112	48	.0432	
73173	412	1	.0024	
73170	9,735	126	.0129	
73159	24,519	897	.0366	Southwest
73139	11,605	464	.0400	
73119	22,573	551	.0244	
73109	19,577	241	.0123	
73108	17,517	145	.0083	
73131	8,762	5	.0006	
73151	267	1	.0038	
73105	5,808	41	.0071	
73104	6,482	19	.0029	
73111	13,136	86	.0065	Northeast
73117	16,166	29	.0018	
73121	2,237	13	.0058	
73141	2,696	3	.0011	
73129	17,902	128	.0072	
73149	4,886	109	.0223	
73160	25,125	792	.0315	
73115	26,051	100	.0038	
73135	11,021	60	.0054	Southeast
73165	7,754	19	.0025	
73110	34,195	96	.0028	
73145	1,807	2	.0011	
73130	13,604	21	.0015	
73150	6,432	16	.0025	

MAP 2.

OKLAHOMA CITY COMMUNITY COLLEGE



COUNTIES CONTRIBUTING TEN PERCENT OR MORE OF THEIR FIRST-TIME-ENTERING FRESHMEN TO THIS INSTITUTION ON AN AVERAGE ANNUAL BASIS

BEST COPY AVAILABLE

service area are not well-served by it.

C. Current Off-Campus Offerings and Cooperative Agreements

Oklahoma City Community College must be credited with aggressively taking its services to its constituency. It has recognized early the need to work with business and industry, the need to work cooperatively with other educational institutions, and the need to use new technologies. The very nature of its older, part-time, evening-attending, career-oriented student body has demanded that new means for delivering educational services be found. Even its controversial grading system (based on mastery of competencies, rather than a tradition "A, B, C" scheme) has been a response to the perceived needs of its constituency.

Off-campus credit classes were offered at eight business sites in 1983-84, with two more sites identified for Fall 1984. Non-credit courses are offered at fourteen business sites.

OKCCC is also delivering courses via electronic media and is a member institution of the Higher Education Telecommunications Association. From summer 1983 through spring 1984, OKCCC enrolled 244 students in telecourses offered via cable and 296 students in telecourses offered via the Oklahoma Educational Television Authority. It is third, behind Tulsa Junior College and Rose State College, in enrollments via electronic media.

Detailed reports on the television courses suggest that they serve a slightly different population than on-campus courses. Married women in their thirties and forties are drawn to the telecourses, as are a slightly greater percentage of students from the northern sectors of the city than attend on-campus courses. These differences are slight, however, and most students probably select the telecourses because of convenience and flexibility. College decision-makers should recognize that some students served through off-campus

offerings will represent lost on-campus enrollments. Quality control measures are the same as for on-campus classes, and evaluative data on success rates indicates that quality is comparable. Cost data on telecourse offerings was not available.

Oklahoma City Community College has also played a leadership role in the Community Education Consortium for Lifelong Learning (CECLL). The purpose of CECLL is to develop cooperative agreements and avoid duplication of efforts in activities designed to improve the quality of life in metro Oklahoma City. Much of the effort includes non-credit offerings, but the Moore Community Education Program is one in which some college credit courses are also included. These courses are aerobics, jazzercise, and country western dance.

One final effort is worthy of note: the Northeast Education Program, a cooperative education program in northeast Oklahoma City. In December, 1983 the Metropolitan Library Commission, upon recommendation of the Public Services Committee, endorsed the Participation of the Metropolitan Library System in a proposal for a Cooperative Education Project to serve Northeast Oklahoma City (now referred to as the Northeast Education Program).

The project was initiated by Langston University, its Urban Center in OKC and Oklahoma City Community College in 1983 and they invited the OKC Public Schools and the Metropolitan Library System to participate as co-sponsors. Requests to fund the college credit courses were submitted to the State Regents for Higher Education. The purpose of the project is to provide residents in the northeast portion of Oklahoma City with increased formal and informal educational opportunities through multi-agency or institutionally sponsored programs. At an initial meeting in November, 1983 representatives from the sponsoring agencies identified several possible types of programs and activities including:

1. Oklahoma City Community College will make available to Langston University Urban Center instructional space on the OKCCC campus.
2. Oklahoma City Community will admit all Langston University Urban Center students and faculty to full circulation privileges of the media distribution portion of its campus Learning Resources Center.
3. The four institutions will appoint a citizen's advisory committee to insure that the programs and activities are directed toward meeting community needs in the Northeast pilot program area.
4. Oklahoma City Community College in cooperation with Langston University Urban Center will examine the feasibility and appropriateness of establishing an office at the Langston University Urban Center that might offer some or all of the following services.
   a. Provide career counseling, guidance and placement.
   b. Provide academic counseling, assessment and referrals for Oklahoma City citizens, particularly those in Northeast Oklahoma City.
   c. Provide planning services for Northeast Oklahoma City citizens to help them meet educational objectives such as car pooling, financial aids, information and advice, etc.
   d. Provide support services for students and faculty of OKCCC courses offered in Northeast Oklahoma City and when appropriate those offered on the OKCCC main campus.
   e. Provide duplicate copies of non-print media from OKCCC Learning Resources needed for OKCCC classes taught in Northeast Oklahoma City and Langston University Urban Center classes, when appropriate.
5. Oklahoma City Community College and Langston University Urban Center will work together to determine what freshmen and sophomore courses, particularly general education ones, need to be offered in Northeast Oklahoma City for residence credit to help Langston University Urban Center students in

particular, and Northeast Oklahoma City citizens in general meet some or all of their educational objectives. Possible locations for these classes are the Langston University Urban Center, Ralph Ellison Branch of the Metropolitan Library System, Douglas High School, Northeast High School, John Marshall High School, and area churches. The courses will be courses regularly offered by Oklahoma City Community College and taught by its regular faculty.

6. The Metropolitan Library System's Ralph Ellison Branch will provide community meeting/classroom space (and possible office space) and will serve to provide and disseminate supporting curriculum materials for programs/classes offered.
7. Oklahoma City Community College and Langston University Urban Center will cooperate to develop proposals for programming grants appropriate for the functions of both, such as the programs that are to be made possible by the reorganization of CETA.
8. In support of credit offerings and to further enhance the public access to the formal learning tract, non-credit offerings will be scheduled in response to known community and individual needs and wants.

This venture illustrates the OKCCC commitment to carry out its mission to serve the entire metro Oklahoma City area. But lack of support from the state level for offering "residence credit" off-campus--and lack of involvement from the other comprehensive community colleges in the area--can soon frustrate the most worthy ventures undertaken single-handedly.

D. Impact of Expanded Off-Campus Offerings on OKCCC

The Oklahoma City Community College has been searching for ways to increase its offerings off-campus through technological alternatives, through cooperation with business and industry, and through cooperative ventures. It has even

pondered the possibility of "outreach centers" located in the three city quadrants outside the OKCCC campus area. The idea of such centers is perhaps sound, but it is probably not in the best interest of Oklahoma City for them to be considered without state-level coordination.

Certainly convenience is a factor. Certainly the northern quadrants of Oklahoma City are not as well served as their population indicates they should be.

But educational services are costly. The expansion of services represents not only an opportunity, but a risk. Both opportunity and risk should be considered by state-level planners, with extensive involvement by leaders of postsecondary educational institutions in metro Oklahoma City.

Costs should be carefully considered as alternatives are developed. Current off-campus course reports for OKCCC indicate that only direct instructional costs (faculty salaries) are considered when costs and revenues are calculated. This picture could be distorted if administrative costs, possible future costs of facility use, cost of instructional materials, and the like are not factored into the equation. An examination of current off-campus operations indicates that expanded operations could result in an overextension at a time when state resources are already dwindling. There must be great certainty in terms of the funding picture before expansion of off-campus offerings is considered, even by a coalition of Oklahoma County institutions.

While some new enrollments will be attracted to off-campus offerings, many of these enrollments represent "lost" enrollments in on-campus courses. This factor must also be weighed carefully in the expansion of off-campus offering. OKCCC currently has a student body to whom convenience and flexibility is important; these students may find the off-campus offerings even more convenient and flexible than current on-campus offerings.

VI. ALTERNATIVE DELIVERY SYSTEMS

One of the charges of CR 1025 was to examine alternative instructional delivery systems for possible use in metropolitan Oklahoma City. Such systems are "alternative" to traditional, campus-based credit courses. Before available alternatives are explored, some general observations are in order. First, the quality of all alternative instructional delivery systems is often suspected by those to whom education is equated with the confines of the traditional classroom. Careful quality control measures are necessary with any alternative delivery systems if they are to be regarded as equivalent to on-campus offerings. Second, "alternative" systems are often touted to be less expensive than their on-campus counterparts. Although the sizable expense of new physical facilities may be eliminated, the general operational and instructional costs are usually comparable with those of on-campus offerings. The prospect of lower cost alone should not lure educational institutions to pursue instructional alternatives. Rather, the added convenience and flexibility that such alternatives offer should be added to the "benefit" side of the cost/benefits equation.

A. Off-Campus Delivery

"Standards and Procedures for Off-Campus Classes," adopted by the Oklahoma State Regents for Higher Education in 1981, call for the maintenance of quality standards equivalent to those on-campus. They also call for "institutional representatives [to] work closely together in order to effect the best possible coordination of off-campus programs." However, no prescribed means to avoid duplication or ensure coordination are set forth. Specific means for approving and monitoring off-campus courses are set out; these regulations undoubtedly have a chilling effect on off-campus offerings. The extension credit/residence credit issue also limits off-campus offerings. CR 1025 implies greater support from the state level of off-campus offerings, but there are clear "pros" and

"cons" on the matter.

With regard to the development of a comprehensive program of off-campus classes to serve the citizenry of the state, the Oklahoma State Regents for Higher Education are confronted with a "Catch 22" situation. If they reduce their vigilance in overseeing the off-campus offerings of individual colleges of the state system, it is possible, based on experience of other states, that there will be some misuse of the latitude allowed. If they hold the line rigidly, the denial of important educational services for their constituency is likewise a possibility. It seem appropriate to take a cold-blooded look at the pros and cons of this issue so that a sound position can be reached and hopefully implemented.

The CON position: College budgets are enrollment driven--the bigger you are the more money you get. Quality is not rewarded except in more subtle ways than immediate cash on the barrel head. Therefore, if colleges cannot induce enrollees to come to their campuses there is a great temptation to take the "campus" to them. Questions such as the following must be considered by policymakers:

If a college embarks on a plan to expand its off-campus offerings, what courses are given--those needed to offer a balanced educational program compatible with the mission of the college or those which will attract sizable numbers immediately? Is there a danger that promotion and marketing can become ends rather than means--or perhaps means to the wrong ends?

Is there a serious danger that courses which depend on access to support service (i.e., libraries, laboratories, personal conferences) will be offered in watered-down fashion to attract large numbers and simultaneously show good will and sensitivity to the wishes of the clientele?

When money is in short supply, is it reasonable to espouse a plan which will

cost new money and weaken an already strained budget for the conventional programs?

The PRO position: Society sets aside a portion of its resources for public education because it is dependent for prosperity and even perpetuation of itself on the input which education makes to the society. The funds spent for education are an investment more than a response to a moral obligation. If those charged with the oversight and delivery of educational services fail to perform their mission of reaching the people who need the training, they become parasites rather than deliverers of essential services. If an effective job is done by those who have been entrusted with this task, they deserve continued support. This support includes support for updating delivery systems as well as course content. Rigid retention of the status quo in a rapidly changing world would be the greatest disservice educational leaders and policymakers could give.

At no time in recorded human history has the speed of change been as great as it is today. The population of our society is more mobile by a "country mile" than at any other time in our history. All of society's basic institutions are experiencing serious difficulty in adapting the delivery of their particular "commodity" to the people who expect and are dependent upon same. This includes church, government and even family.

Is it reasonable under such conditions for education to lock itself into a delivery format that was built for a different society in a different era with similar but different needs and priorities? If one examines the technology now available to facilitate delivery of educational services (i.e., delivery of words and pictures by telecommunications), it becomes apparent that in addition to the conventional mode which involves bringing large groups of people together at a fixed location to sit at the feet of a mentor, there are other modes which must be integrated into the delivery system. It also becomes apparent that

under certain controlled conditions, it makes much more sense to send an instructor or an instructional team to a suitable location near the enrollees than it does to have forty people get in forty autos and consume X hours in travel and Y costs in auto upkeep to get to the location where the educational experience is provided. Obviously, this decentralization theme has its limitations and loss of quality cannot be the price paid for time and money savings plus convenience for the consumer.

B. Technology-Based Delivery

The Oklahoma State Regents for Higher Education in 1981 also adopted criteria and procedures for offering credit courses via electronic media or other nontraditional methodologies. The quality control issue is again raised here, with on-campus courses used to set the quality standard. State-level approval of such offerings is required, with emphasis in the criteria upon need for coordination and lack of duplication. However, the guidelines do not provide a positive stimulus for the cooperative endeavors to which technological alternatives lend themselves.

The extensive section which follows enumerates technologies that can and should be considered to serve Oklahoma County. But the very pervasive nature of most of the technologies suggests that they should be explored cooperatively by the higher education institutions in Oklahoma County or even by the state itself if true cost-effectiveness is to be achieved. This should pose no special problem since the State Regents already operate a talk-back TV network.

For more than a quarter of a century, public television stations have been the primary alternative delivery system available for use by educational institutions. The single broadcast channel of the public television station will not be sufficient to meet the needs of the increasing number of students who can be served through alternative delivery systems. To meet the needs of

these students, educational institutions will have to utilize other delivery systems more fully.

A variety of systems are available for those who want to expand their campuses through technology. These technologies may be used separately or in combination with others. They may be operated and financed by a number of enterprises, including educational institutions, or operated and financed by a single educational institution. They may be purchased, installed, and launched as a full-scale operation or purchased, installed, and operated on an incremental basis, which is more often the case. They may require low operating costs and high capital costs or high operating costs and low capital costs. Many are regulated by the government in one way or another.

There are a number of alternative delivery systems available. But there is not a simple formula for determining which system or mix of systems is the best for all educational institutions.

This fact places a premium on good planning by educational institutions. This planning which must be undertaken with a clear understanding of the educational institution's needs; often in concert with other educational institutions, other institutions in the public sector, broadcasters, cable companies, government agencies, or vendors.

The carefully planned use of more than one delivery system can help minimize risks for the educational institution. Such diversification makes it possible to reach more students; to make available a larger volume and wider variety of programming and services; to provide more flexibility for an educational institution; to provide more cost-effective service to students, (though this does not necessarily mean cost fewer total dollars); and to increase an educational institution's visibility within the community.

From a technological point of view, it is now possible to design and implement an ideal delivery system. For most, educational institutions,

however, the cost of designing and implementing an ideal system is prohibitive. The question for the institution is, "How effective can we afford for this delivery system to be?"

The substance of some of the general descriptions which follow were first included in a publication entitled ITV: A User's Guide to the Technology. It is a report by the Office of Engineering Research of The Corporation for Public Broadcasting. The publication does a good job of describing in layman's terms how certain technologies work. In some cases, it includes a consideration of various costs related to the installation and operation of over-the-air and cable systems. It is recommended for the reader who wants to learn more about some of the technologies described herein.

1. OVER-THE-AIR TELECOMMUNICATIONS DELIVERY SYSTEMS

Over-the-air delivery systems are those which transmit signals electromagnetically through the air.

There are several general characteristics which are shared by all over-the-air systems. First, the path between the sending and receiving sites must be free of substantial obstructions, such as buildings or mountains, in order to obtain good reception.

Second, over-the-air signals diminish with distance. The range in miles of an over-the-air signal is dependent on its original strength; the greater the distance or the weaker the signal, the more sensitive the receiving antenna must be to detect the signal.

Frequently, microwave links are used to interconnect over-the-air systems and to relay program signals from the transmitter to outlying translators to connect stations in a network or to connect a station with a satellite earth terminal.

a. Broadcasting

The technology which has been most generally available to educational institutions for the distribution of instructional programming is broadcasting through the open circuit channel provided by public television stations or, occasionally, commercial stations.

Broadcast signals originate in a station's production studio. Programming may orignate in the studio, may be received through a network interconnected by the telephone company, or may arrive at the transmission facility in the form of videotapes or films. Increasingly, video signals are being sent to the broadcast site via satellite.

Public television stations make up the organization of the Public Broadcasting Service (PBS) and are interconnected technologically through telephone company hookups, microwave, and/or cable links. A good example of the advantages to be gained through interconnection can be found in the PBS Adult Learning Service. The Adult Learning Service recognizes that there is a need for a national delivery system of top quality instructional televison courses with all of the economies of scale and potential for excellence that national delivery can provide. At the same time, however, the Adult Learning Service recognizes that the choice and use of these programs must remain under the control of local broadcasters and educational institutions. Together, they decide which of the available programming they will use and when and how. During the 1984-85 academic year it is estimated that more than 800 colleges and universities will use courses offered via the Adult Learning Service and that more than 100,000 students will enroll in these offerings.

For more information about the Adult Learning Service, the interested reader should write to Ms. Dee Brock, Director of Adult Learning Programming, PBS Adult Learning Service, 475 L'Enfant Plaza, S.W., Washington, DC 20024, or call 202/488-5361.

Public broadcasting stations can also belong to regional and state networks such as the Southern Educational Communications Association and the Central Educational Network. Belonging to these types of networks enables stations to pool purchasing power to obtain a wider variety of programming than they could acquire on their own.

The interested reader should write to the Southern Educational Communications Association, P.O. Box 5966, Columbia, SC 29250, or call 803/799-5517, and to the Central Educational Network, 4300 West Peterson Avenue, Chicago, IL 60646, or call 312/545-5525.

Some stations also offer a videotape copy service, offering educational institutions copies of programs for use at times more convenient for instructors and students. Some stations now operate Instructional Television Fixed Service (ITFS) systems, which provide an additional four channels for the delivery of instructional programming. Others are linked with local cable systems to provide multiple channels that make it possible to increase the scope and flexibility of instructional television services.

Educational institutions should not lightly dismiss commercial stations as a potential resource. Some educational institutions--the Southern California Consortium for Community College Television notable among them--enjoy exceptionally good working relationships with commercial stations. For more information concerning the Southern California Consortium's experience in working with commercial stations, the interested reader should write to Ms. Sally Beaty, President, Southern California Consortium for Community College Television, 5400 Orange Avenue, Suite 109, Cypress, CA 90630, or call 714/828-5770.

b. Instructional Television Fixed Services (ITFS)

ITFS is a type of over-the-air transmission system designed specifically for the delivery of instructional programming by schools,

governmental organizations, or other non-profit groups. Its chief advantage is that it can offer up to four channels of simultaneous transmission, while a broadcast station can offer only one.

With a typical ITFS system, four low-power transmitters are placed at a central location, such as a public school, where the channels are programmed. Receiving sites within the area of coverage can pick up all four channels simultaneously. ITFS signals cannot be received at any site which is not equipped with special ITFS antennas.

ITFS signals typically reach relatively small distances. When receive sites are located less than six miles or so from the transmitting site relatively simple roof-top antennas are sufficient. At distances of eight miles or so from the transmitting site, receive sites must be equipped with a highly directional antenna to receive an acceptable signal.

The maximum distance reached by ITFS signals is usually on the order of twenty-five miles, but repeaters can be used to deliver signals to more distant sites. As with broadcast television, transmitting and receiving locations must be within line of sight. If this is not possible and a number of repeaters are required, the economic advantage of using ITFS is reduced.

The allocated frequency spectrum of ITFS may be used not only for video but also for voice and data transmission. ITFS may also be used for "reverse" response and/or inquiry in either voice or digital forms. Accordingly, ITFS provides the possibility for offering interactive educational services.

The installation of an ITFS system requires a considerable capital outlay. ITFS was designed to be a low-cost alternative to broadcasting, but because ITFS reaches only a limited area, these relatively low costs may seem quite high if distributed only to a few receiving sites.

Once an ITFS system is in place, however, it is comparatively inexpensive to

add additional receiving sites within its range. This is because the main costs of ITFS systems are associated with its origination and distribution equipment. The cost of reception equipment is relatively low.

Because ITFS has been rather significantly under-used, recent FCC rulings have made it possible for commercial enterprises to use portions of ITFS channel space for other than educational purposes, resulting in a significant increase in ITFS applications filed recently. The Public Broadcasting Service has filed many applications hoping to create a "National Narrowcasting Service." Columbia University has filed applications with the idea of selling or leasing excess channel capacity to a commercial enterprise. Applications for ITFS channels outside immediate service areas often fail to consider the needs/wishes of local educational institutions. Lest ITFS channels be awarded to others by default, educational institutions should monitor ITFS application processes carefully.

The most attractive features of ITFS are probably its multi-channel delivery system and its interactive capability. Not only can a much larger volume of programming be transmitted than is possible with broadcasting but as many as four different programs can be run simultaneously. This makes it possible to deliver programming to "targeted" audiences. For example, an ITFS system might well transmit a channel to colleges where remote students may interact with other students and an instructor in a classroom, another channel to secondary schools, and two channels to elementary schools.

Like broadcasting, ITFS is a means of direct delivery, meaning that programs can be transmitted and used simultaneously; however, the greater channel capacity of ITFS and its generally smaller audience significantly reduce scheduling difficulties. It is possible to repeat programs, and programs can be transmitted on a call-in basis in response to requests from individual receive sites. Receive sites can also record ITFS transmissions off-air for later use,

subject, of course, to copyright restrictions.

The FCC permits the sharing of ITFS systems with governmental or non-profit organizations for educational purposes. As a result, in-service training for those in medical-related fields, safety programs, and continuing professional education are all candidates for ITFS delivery. Shared systems can mean shared costs and shared risks.

Kirkwood Community College has been a particularly successful user of ITFS. For more information concerning Kirkwood's experience with ITFS, the interested reader should write to Mr. Rich Gross, Director of Telecommunications, Kirkwood Community College, 6301 Kirkwood Boulevard, S.W., Cedar Rapids, IA 52406, or call 310/398-5537.

c. Low-Power Television (LPTV)

A low-power television station transmits its signal with less power than regular "full-service" station. As a result, an LPTV station reaches a smaller geographic area than a full-service station. An average LPTV signal may extend up to ten miles from the transmitter; a signal from a full-power station may extend fifty to sixty miles.

LPTV is a less expensive and simpler way to broadcast televison programming. Generally, construction costs are on the order of one-fourth those of a full-power station, and fewer operating personnel are required. In addition, the FCC has developed a special set of regulations for low-power stations that are intended to make it easier for groups to build and manage such stations.

Along with the benefits of LPTV, there are some potential problems. LPTV has been designated a "secondary service" by the FCC. This means that the signal of an LPTV station may not interfere with a viewer's reception of regular, full-power stations, and further, that the low-power station will

likely lose its license if a new full-power station is licensed to operate in an area where the LPTV signal causes interference. The secondary status of a low-power station may be less of a problem in rural areas where an LPTV operator could change channels to avoid interference with a full-service station, but in major cities very few channels are available. As a result, an LPTV station could have to shut down if a new full-service station was licensed to operate on a related frequency. It appears that LPTV can be best used in underserved television markets, such as those located in small towns and rural areas. Low-power television opportunities appear to be weaker in major markets. It is anticipated that by 1985-86 there will be much competition from large-channel cable systems and other delivery systems. If so, low-power commercial stations may find that they are entering a market which is nearly saturated.

Because of the cost of cable subscription, cable companies may have a much smaller penetration among low-income groups than anticipated. As a result, LPTV in major markets may be better suited to a target group identified by its economic circumstances, rather than by sex, age, language, or race. Some feel that LPTV may be the only "new technology" that the poor will be able to afford by the late 1980's.

It seems almost certain that some kind of tax base will be required to support LPTV stations located in small towns and rural areas. LPTV stations will also have to pursue a variety of other funding sources, including underwriting from local companies, auctions, viewer subscriptions, and contributions from public institutions.

Non-profit groups which plan to mix commercial and non-commercial fund-raising activities need to consider very carefully the potential revenues to be gained from commercial activities. Supplementary commercial activities may provide modest revenues, but not enough to support the station entirely.

The real value of LPTV for educational institutions is largely

undemonstrated. It was not until late 1980 that the FCC began accepting applications for LPTV. In early 1981, however, the FCC was forced to stop accepting applications because more than 5,000 had been received and the agency was unable to process the applications. Among the more than 12,000 applications on file at the FCC in mid-1983, most applicants--more than 80% --were commercial groups seeking to provide an over-the-air pay television channel in large television markets.

The person who is interested in an in-depth treatment of LPTV would do well to read An Assessment of Low-Power Television for the Nonprofit Community, a report prepared by John Carey for The Benton Foundation and the Corporation for Public Broadcasting. The substance of this limited treatment of LPTV was first included in John Carey's report.

d. Satellites

The use of satellites as orbital relay stations has become quite common. The basic elements of a satellite system are the transmitter, the satellite itself, and the ground station dish or antenna. The originating ground-based transmitter--the uplink--beams a microwave signal at one frequency to the satellite receiver. The satellite changes the frequency and directs it to the ground station receiver--the downlink--providing a long-range distribution system.

The main advantage of satellite transmission is the ability it gives to supplement such land-based facilities as cable and microwave. Satellites can also be used to deliver programming into remote areas where it may not be economically feasible to deliver programming in more conventional ways.

A major drawback to using satellites is the high cost of ground stations and what satellite communications engineers call the "final mile problem." As long as expensive ground stations are required, receiving dishes are likely to be

located primarily at major installations, such as cable system headends, public broadcasting stations, or, possibly, selected ITFS transmitters.

Higher powered satellites may help solve these problems. One such satellite, known as the ATS-6, has been used for experimental delivery of educational and medical services. The ATS-6 requires considerably smaller and less expensive receiving antennas, offering the potential for delivery of programming to a centrally-located educational institution for re-distribution via ITFS or cable to other school or even to individual institutions.

Satellite delivery systems have two particularly attractive features. They can reach a very large area, and they can do so with multiple channels. Satellite coverage is relatively unaffected by topographical factors and can be used to interconnect non-contiguous areas. In addition, satellites provide for two-way communication of video and audio.

The distribution capabilities of satellites to deliver simultaneous signals for re-distribution potentially offer educational institutions a greater variety of programming and more flexible scheduling; however, until the cost of satellite delivery is brought down to a level which local educational institutions can afford, satellites are not likely to play an important role in the direct delivery of instructional television to individual receiving sites, such as community colleges.

On the other hand, satellites are a more cost-effective long distance delivery system than microwave relay and cable networks. The additional channels provided by satellites should permit the increased distribution of instructional television to public television stations and other receiving sites. The Appalachian Community Service Network (The Learning Channel) uses a satellite to distribute instructional programming and supplies a significant number of cable companies. For more information on The Learning Channel write Robert J. Sestili, Director of Programming, ACSN's The Learning Channel, 1200

New Hampshire Avenue, N.W., Suite 240, Washington, DC 20035, or call 202/331-8100.

Satellites are also used to conduct teleconferences. The Campus Conference Network is a satellite delivery system designed and managed by Services by Satellite, Inc. (SatServ). Colleges and universities around the country, including Oklahoma City Community College, serve as receive sites where satellite-delivered programs can be seen. The Campus Conference Network serves virtually any enterprise which is interested in participating in teleconferencing. The interested reader should write SatServ, 1660 L Street, N.W., Suite 907, Washington, DC 20036, or call 202/331-1960 for more information.

The National University Teleconference Network (NUTN) is a coalition of over 100 institutions of higher education. It, too, provides full teleconference services for its members and external groups. The interested reader should write NUTN, 330 Student Union, Stillwater, OK 74078, or call 405/624-5191 for more information.

2. CABLE TRANSMISSION

Cable delivery systems are those which transmit signals electromagnetically through wire cable or, more recently, through optical fiber. Because the sending and receiving sites are physically connected, cable is considered a "point-to-point" transmission system. Although cable signals diminish with distance, amplifiers and filters can be placed along the cable periodically to regenerate the signal. As a result, cable systems have a potentially greater range than all over-the-air systems except satellites. Cable systems are relatively unaffected by the topographical and weather interferences and are especially suitable for providing a number of channels to any number of locations.

The high capital outlays associated with establishing a cable system make it nearly impossible for an educational institution to construct its own county-or city-wide system; however, there are a number of cable systems already in place, and these systems offer a number of interesting possibilities for the delivery of instructional television.

Cable television has a number of advantages over broadcasting. For one thing, the use of cable greatly improves the quality of the picture through the elimination of interference. In addition, the use of amplifiers allows for a substantial increase in the number of channels that the system can distribute at a small incremental cost. This multi-channel capability provides cable operators with the opportunity not only to originate their own programming but to provide channels for colleges as well.

The FCC has established a practice of encouraging cable operators to make certain facilities available for the public benefit. As a result, certain channels have been designated for use by educational institutions, local government, and other community groups. While the regulations concerning the number and availability of public access channels have changed over the years, the principle of public service has been pretty well established.

Another characteristic which should be of special interest to educational institutions is that cable systems are franchised by local government. Often franchise agreements require that cable operators provide cable connections for public buildings, including colleges.

An important feature of some newer cable systems is the two-way communications potential they possess. This could be an especially important feature for educational institutions. It should be noted, however, that the cost of the hardware which is necessary to take advantage of cable's two-way capability may well have to be borne by the educational institution.

Cable also gives educational institutions greater flexibility with respect

to scheduling and greater diversity with respect to programming.

The use of a cable system is not without its problems, however. A cable system typically does not reach nearly as many homes as a broadcast station, so the level of cable penetration is a matter educational institutions need to take into account when they consider using such systems. In addition, they need to take into account the type of individuals who are subscribing to the system. Problems are also associated with getting programming to the cable headend for delivery through the system.

The full educational potential of cable televison has yet to be realized, but some community colleges are using cable quite successfully. Tulsa Junior College is one such college. For more information, the interested reader should write to Jerry Carroll, Dean of Instruction, Tulsa Junior College, 909 S. Boston Avenue, Tulsa, OK 74119, or call 918/587-6561.

3. VIDEO COPY DELIVERY SYSTEMS

Video copy delivery systems are those which deliver programs in the form of videocassettes or videodiscs. Moreover, these instructional television materials are sent to the user via a physical distribution system rather than being transmitted electronically.

In recent years, video recorders suitable for home use have become increasingly available and affordable. These home recorders are capable of playing back programs through a standard television set using videocassettes.

Videotape is both a record and playback technology. The videodisc is a playback-only device. Videodiscs are thin, plastic discs somewhat similar in appearance to audio records. Videodiscs are rotated at very high speed on a player which reads the information and sends signals to the antenna of a standard television set.

Unfortunately, videodisc technology has been developed independently by

several private enterprises. As a result, several incompatible systems have emerged. This promises to be a problem for educational institutions as does the shortage of quality educational discware available for use.

Of all the alternative video delivery systems considered herein, copy systems offer the greatest flexibility for use in the delivery of instructional television programming. They seem to be the systems most able to provide the student with the right program at the right time at the right place. Many students may soon have video playback equipment available to them in their own homes.

The Northern Illinois Learning Resources Cooperative is one organization which seems to have had particular success in using video playback equipment to serve students in learning centers. For more information about NILRC's experience, the interested reader should write Ralph Steinke, Director, Northern Illinois Learning Resources Cooperative, Waubonsee Community College, Route 47 at Harter Road, Sugar Grove, IL 60551, or call 312/466-4811, Extension 378.

4. RADIO AND AUDIO SYSTEMS

Delivering instruction via radio has not been as well received as delivering instruction via television. In fact, instructional radio has probably been somewhat upstaged by instructional television.

Although most educational radio stations are owned and operated by educational institutions, their emphasis has been on public service and informational and cultural programming for general audiences. Very few have constantly maintained a direct instructional program service, and but few truly high-quality college-level radio courses have been offered successfully.

Radio courses may never be tremendously successful. Most students, given a choice, will opt for using audiocassettes of radio programs instead of listening to the radio programs themselves, and they'll do so for the same reasons they prefer to use videocassettes: flexibility and convenience.

There is continued interest in using radio/audio systems to deliver instruction and to use radio/audio in conjunction with other alternative learning systems.

The ability of many FM stations to transmit a second program on a subchannel under "subsidiary communications authorizations" (SCA) offers educational institutions a significant opportunity to meet the needs of particular types of students such as those who are blind or physically handicapped. SCA may also provide an opportunity to offer in-service training opportunities for certain professions.

A special receiver is required to receive an SCA signal. Educational institutions which provide SCA services are the authorized owners of the receivers and must be careful about how the receivers are distributed. According to the FCC, SCA is not a broadcast function but a private "point-to-point" communication. This distinction relieves educational institutions using a commercial SCA channel from being subject to the regulations normally associated with radio transmission. As a result, it is possible for an educational instititution to become involved with providing radio service to students whether or not the institution owns a radio station.

Rio Salado Community College is one institution which has successfully used both radio and audiocassette courses. In addition, Rio Salado operates an instructional audio teleconferencing system known as The SUNDIAL Network. This network uses regular telephone lines to join several groups in different locations throughout Maricopa County. The network transmits the instructor's lecture via telephone, and it is amplified in the classroom located at each site. Students interact with the instructor by using a microphone which is located in each classroom. Some visual materials are sent to students by mail, but the network also uses slow-scan television.

For more information concerning Rio Salado's experience with these alternative delivery systems, the interested reader should write Ms. Jan Baltzer, Associate Dean, Instructional Technology and Design, Rio Salado Community College, 135 North Second Avenue, Phoenix, AZ 85003, or call 602/256-7722.

5. COMPUTER TECHNOLOGY

Computer systems have long been viewed not so much as alternative delivery systems as systems to help manage and/or aid instruction. Computer systems have not been widely used as primary sources for the delivery of complete courses of study, and there are good reasons why they have not.

Even though educators have been exploring the uses of computers to deliver and manage instruction since the early 1960's, the development of courseware (i.e., programs which interactively instruct students) remains a somewhat inexact science. Much of what is delivered on computer systems today fails to use the computer effectively. This hampers the use of the computer as an alternative delivery system.

Unfortunately, the kind of interactive courseware needed is expensive to develop and time consuming to produce. Attempts to develop courseware have been scattered, varied greatly in quality, and generally represent a rather disorganized attempt at developing instructional materials.

Rapid technological change is also a problem. Technology changes so quickly that it is becoming increasingly difficult to design courseware for existing hardware. This difficulty has caused many publishers and software producers to hesitate to produce curriculum materials to be delivered through computers.

One computer-based alternative delivery system bears watching. A year ago or so, TeleLearning Systems, Inc., announced plans to launch what its founders modestly described as "the world's first electronic university." TeleLearning

is an educational telecommunications system that connects the personal computers of students with the personal computers of their instructors, who are based in various parts of the country.

To "apply" to the "Electronic University," students buy TeleLearning packages at local computer stores. These require a modem--a device that lets their home computer communicate with other computers over the telephone--and a software package that enables them to receive information and contact TeleLearning instructors by pressing keyboard buttons.

Although TeleLearning is not accredited as an institute of education, it offers courses that have been prepared by accredited colleges such as Ohio University, DeAnza College, and Central New England College. It also offers its own courses that help prepare students to take College Level Examination Program tests.

The TeleLearning catalogue lists more than 50 courses, costing from $35 to $150. This covers the cost of access to TeleLearning's course material and instructors, but the software and any telephone calls on the modem are extra.

For more information concerning the TeleLearning System, the interested reader should write to TeleLearning Systems, Inc., 505 Beach Street, San Francisco, CA 94133, or call 415/928-2800.

6. CONSIDERATIONS IN SYSTEM SELECTION

Given the array of alternative technology-based delivery systems which are available, the following may be observed:

1. The best alternative technology-based delivery system available is no better than the courseware which is available for use with the system. Choices concerning quality courseware are limited in all the systems described.
2. Be skeptical of systems billed as "promising." Look first at those systems which have demonstrated their worth.

3. It is neither necessary nor necessarily desirable to try to do everything possible with the wide array of available delivery systems. Determine first of all what the institution's needs are; then select delivery systems based upon that analysis of needs.

4. The main barriers to the use of alternative technology-based systems are not technology-related. More often, the barriers are political, legal, and financial. Faculty acceptance, in particular, is critical.

5. Investment in alternative technology-based delivery systems involves a measure of risk. The governing board and top-level administration of the institution must have a reasonable risk orientation and visibly support the development of such systems.

6. Before any significant investment is made in alternative technology-based delivery systems, the institution must be certain that its state funding agency will be willing to provide appropriate funding for instruction delivered via such systems.

7. Whenever possible, educational institutions should cooperate with others on the development, acquisition, and uses of courseware and delivery systems. Cooperation can help minimize risks, help guarantee audiences, help improve marketing, and improve quality. Where resources are available, they should be tapped. Where expertise is available, it should be used. Duplication of effort should be avoided whenever possible.

8. To the greatest extent possible, educational institutions should stay out of the "hardware and facilities business" where the use of alternative technology-based delivery systems are concerned. Whenever possible, "piggyback" on others' systems. Let others take the financial risks associated with rapid technological change.

9. Educational institutions should avoid the tendency to sacrifice quality to

achieve reduced costs. These systems literally make an institution more visible in the community; thus it is important to put the institution's best foot forward.

10. Some "outside" institutions are now in a position to compete with local institutions for students. If students want or need to be served by alternate technology-based delivery systems, and if local institutions do not provide such opportunities, students will likely have access to such services from those outside the immediate area.
11. Educational institutions should have some organizational unit which has as one of its primary responsibilities that of exploring how alternative technology-based delivery systems can be used to serve students. Too often, educators overlook the instructional potential of technology.

C. OBSERVATIONS ON COST EFFECTIVENESS

A recurring question associated with the use of alternative technology-based delivery systems is this one: "Are such systems cost effective?" The answer to this question is twofold: (1) they can be; and (2) there is no answer which will generally apply to all institutions. To answer the question without duly considering the income, savings, and costs associated with a particular institution's use of such systems does a disservice to the inquirer.

Each institution must decide for itself whether the use of alternative technology-based delivery systems is cost-effective and, for that matter, how important cost-effectiveness considerations are in relation to other considerations; i.e., are there intangible benefits associated with the use of such systems; benefits which make them attractive for use even though they may be less cost-effective than more traditional on-campus methods.

An educational institution which is considering the use of alternative technology-based delivery systems should take at least the following into account in addressing the question of the probable cost-effectiveness of such

BEST COPY AVAILABLE

systems.

Income

1. Tuition, fees from students.
2. State reimbursement per student.
3. Sale of courseware to students.
4. Direct employer contributions to institution for providing service, such as those made through contract learning arrangements.
5. Return on institutional investment in courseware development.
6. Contributions of other educational institutions to help offset costs related to the acquisition and/or delivery of courseware.
7. In-kind contributions.
   a. Broadcast time donated
   b. Cable time donated
   c. Programming donated
   d. Promotion
      (i) Print
      (ii) Video/audio
   e. Equipment
   f. Facilities
   g. Materials
   h. Personnel

Savings

1. Increased on-campus space available for use.
2. Decreased need for on-campus facilities maintenance.
3. Decreased need for use of on-campus utilities.
4. Decreased need for parking, security, and other on-campus services.
5. May permit more productive use of faculty.

Expenses

1. Programming/Courseware
   a. Cost of leasing
   b. Cost of purchasing
   c. Cost of producing/developing (may be amortized)
   d. Cost of investing in programming/courseware developed by others (may be amortized)

2. Videotape, Audiotape, Computer Software

   a. Cost of tape/disc stock

   b. Cost of duplicating

3. Delivery

   a. Cost of air time, cable time

   b. Cost of telephone lines

   c. Cost of shipping/transporting materials and/or equipment

4. Equipment

   a. Cost of acquisition (may be amortized)

   b. Cost of leasing

   c. Cost of maintenance

5. Facilities

6. Promotion/Recruitment

   a. Cost of designing, printing, and mailing brochures

   b. Cost of air time

7. Faculty

   a. Cost of full-time faculty member

   b. Cost of full-time faculty member on extra-service assignment

   c. Cost of part-time faculty member

   d. Cost of transportation for faculty

8. Support Services/Personnel

   a. Printing

   b. Postage

   c. Telephone lines

   d. Computer time

   e. Clerical help

9. Administrative Overhead

10. Other

The principal point being made in this chapter is that: (1) if off-campus courses are chosen judiciously; (2) if settings in which they are offered afford significant savings in time and money to the recipient of the service; and (3) if there is no compromise with quality, there should be enthusiasm rather than reluctance to add off-campus training opportunities to the historic on-campus system. The demands of business and industry for on-site postsecondary training for their employees must be met if Oklahoma's vital economic development is to continue. "On-site" is "off-campus," and encouragement for such efforts is needed.

VII. OPPORTUNITIES AND OBLIGATIONS

Oklahoma City and the metropolitan area immediately adjacent to it share with other American urban areas some extremely complex problems such as welfare, health care, transportation, crime control, racial tensions, revenue generation, education and a host of others. Many of the categories of problems do not lend themselves to isolated treatment because they are interwoven with other problem areas. There is a never-ending struggle among sociologists, psychologists, criminologists, economists, educators and other specialists as to what should be done to cope with such issues. Education sits squarely in the middle of virtually all of these controversies and is expected to produce and help others produce workable solutions to same through training and research efforts.

A. Recommendations and Suggestions

CR 1025 identifies a small cluster of unsolved problems and seeks counsel on appropriate action to solve or mitigate them. This report has attempted to obtain and organize certain data which must be examined and understood if progress toward solutions is to be made. It has looked at the national and state educational scenes and then has attempted to narrow the investigation to metropolitan Oklahoma City in general and OKCCC in particular since this institution was singled out in the resolution as a focal point.

Because of the breadth and complexity of the issues mentioned above, it has not been possible in this limited investigation to do more than review the setting, identify some of the key forces at work and arrive at some impressions as to potentially productive ways to improve the status quo. As this project progressed it became more and more apparent that the conclusions would be based as much on the subjective judgment of experienced practitioners as upon the statistical evidence compiled. As discussions with political, educational and business leaders took place, it became evident that a workable action plan

BEST COPY AVAILABLE

supported by the available facts was the real objective of the exercise. With that end in view the following suggestions are submitted:

1. In view of the historic development of post high school education in the state of Oklahoma in which a long series of increments has produced a strange and at times conflicting mosaic, the time has come for a review and probable revision of the total structure. Where assignments are vague and overlapping, it is impossible to get efficient, cost-effective results. This is a complex task but is one many other states have been forced to take on for essentially the same reasons as those which compel Oklahoma to move in this direction. If done properly this project would approach in magnitude a constitutional revision. Both the legislature and the Oklahoma State Regents have major roles to play in such a project. It is also possible that the present studies being undertaken by the Governor's office could serve as an entry into a fullblown Master Plan For Oklahoma Higher Education project.
2. The designation of OKCCC as the vehicle for the delivery of community college courses to the metropolitan area as stated in CR 1025 should not be interpreted as an exclusive assignment. The sponsors of the resolution have stated that they did not intend for corrective steps to be taken only by OKCCC.
3. Cooperation, coordination, communication and cost effectiveness are all very popular concepts and each certainly relates to this study. There is no rationale to support the head-to-head competition which is frequently found among public institutions when they are not controlled by overseers who disallow each institution doing its thing the way it sees fit. The counsel we give in this report must dwell on the importance of clear public policy on the assignments given to public institutions and the insistence that

wherever possible the institution best qualified to deliver the service be called upon to do the job. The dissipation of energy and resources in internecine struggles is a cardinal "no-no." Hopefully, good policy and management will prevent this from happening. How does this apply to the Oklahoma City area? The primary deliverers of collegiate education in the area must perceive themselves as components of a broad gauge task force, not as sacrosanct entities bent on brushing aside all elements which restrict their freedom of action and choice. This means intelligent sharing of resources. It means critical self-analysis followed by action to deliver at an optimum level that which they were created to deliver. In some cases, it may mean stepping back to let the better qualified college handle the particular assignment, and in all cases, it means being prepared to share and work in concert with other publicly supported institutions.

4. Partnerships between colleges and business-industry are not uncommon in the area, but much more is possible and desirable. Industry appears ready, willing and able, but education should take the initiative and see what types of interfacing can be set up to get optimum results. There is a High Tech Commission appointed by the Governor which has not yet completed its work and submitted its findings. Hopefully, some important counsel will be generated by this group. Most of the manpower needed at this new level of sophistication cannot be produced at the high school level. Community colleges should be positioned to produce this manpower and thus open the gates to the many firms considering relocation in the state of Oklahoma. Career ladder concepts should be developed to take the vocational school graduate and build on his knowledge and skill, thereby opening vistas for both the individual and the employer.

5. Chapter VI of this study supplies extensive information on alternate delivery systems, including pertinent cost elements to consider. The options

identified here should be examined carefully to determine those which fit the local situation best. Then, a limited number of carefully monitored pilot programs should be implemented. This experience should lead to a series of empirical decisions regarding appropriate next steps.

The pros and cons of expanding off-campus offerings suggest that, with proper attention being given to avoid the pitfalls, expansion of such offerings will assist significantly many citizens who sorely need the educational opportunities, but cannot obtain them under the current pattern. Such expansion can probably be achieved through the existing off-campus course approval mechanism in the Chancellor's office. The major change needed is an adjustment in outlook so that the practice is espoused and encouraged rather than looked upon as marginal. The experience of other states supplies a plethora of evidence that properly organized off-campus instruction can be an extremely efficient, cost-effective delivery system.

6. Some serious dialogue must be held among decision makers from OSU-TI, Francis Tuttle and District 22 Vocational Schools, ORS, OKCCC, CSU, and possibly the Oklahoma City Schools. The NW quadrant of the city which has almost 50% of the city's population does not have suitable access to post high school training. There are several possible solutions to this problem. They should be examined and evaluated after which the solution agreed upon should be promptly implemented. The Chancellor's office is generally conversant with this situation and since it is basically a higher education matter, that office might follow up its preliminary work and bring the institutions involved together.

For openers, a serious review of ways and means to unharness the potential of the Francis Tuttle Vo-Tech Center should occur. It is misleading to designate as "high school level" several of the courses which this Center

offers. In view of the paucity of other options in the NW sector, it appears certain that Tuttle will be called upon to offer even more of these much-needed sophisticated training programs, but in cooperation with, e.g., OKCCC.

B. Remaining Questions

It seems appropriate to include in this report some of the unanswered questions which emerged during the quest for information bearing on CR 1025. It is hoped that the legislative and administrative agencies who receive this report will note the following questions and take steps to produce action in the resolution of those they feel warrant attention.

1. Who should take the initiative in bringing about some of the reforms which would strengthen the state's higher education system?
2. What should be done to streamline the present approach used to provide vocational and technical education for the citizens of Oklahoma?
3. In view of the level of sophistication needed by contemporary work force members, has the vocational high school outlived its usefulness in Oklahoma?
4. Is it reasonable to regard the whole state as the service area of every public college, or is it advisable to identify for many colleges the geographic area which should be the focal point of its educational thrust?
5. Is it desirable to review and refine the present way in which coordination and communication among public colleges is carried out? Should a council of presidents in the metropolitan Oklahoma City area be established to facilitate dissemination of current information and encourage cooperative endeavors?

C. Special Considerations for Oklahoma City Community College

Since the study of CR 1025 was conducted under the auspices of OKCCC and since frequent reference is made to it in the resolution, this subsection will be directed primarily to the policy and management leaders of this institution. The OKCCC Regents and their president have expressed an avid interest in

developing the full potential of the college and have sought ideas which might help in moving toward this goal. Quite properly, it is their conviction that an institution grows and prospers or atrophies and decays. Growth, of course, may be quantitative, qualitative or both. What specific steps might OKCCC take to maintain or even improve institutional vitality? The following suggestions attempt to address this question.

1. OKCCC should formulate and implement a 3-5 year marketing plan which involves a critical look at themselves, their mission and their constituencies.
2. OKCCC should give serious attention to improving their image among residents north of the river. This must be viewed as a long-term project and must be approached from a high professional and ethical level. Gimmickry is discouraged.
3. A thorough market analysis should be made so that unserved and underserved segments of the public will be extended the benefits of this comprehensive college.
4. A careful examination of new delivery systems should be conducted and a small select number which fits the capabilities and aspirations of the college should be put in place. While a certain positive public relations impact is likely to result from these steps, care must be taken to protect the integrity of the college and its educational offerings.
5. Explore, with great tact and a low profile, the opportunities which may exist for cooperative, mutually beneficial project with RSC, Francis Tuttle Vo-Tech School and possibly CSU and OSU-TI.
6. In addition to the Area Vocational School service area for which OKCCC has major responsibility, it should explore the opportunities for service to the NW and Central City areas. The establishment of well-conceived off-campus

classes is likely to be a sound way to deliver such services. (Because of its location in the underserved NW quadrant of the metropolitan area, its client-oriented philosophy, and its resources, opportunities for cooperative ventures with Tuttle should be checked out at an early date.) Such action would be consistent with the policy expressed in Oklahoma State Statute 2251.

7. Develop and maintain the best possible relationships with the Higher Education Regents and the Chancellor. OKCCC is part of a state system and it is imperative that it function as a team player while simultaneously trying to do the best for its institutional future.
8. Get the OKCCC "house" in such order that it can respond very rapidly to new and emerging manpower training needs of the business and industrial community. Maintain close liaison with local Chambers of Commerce and State Manpower offices. Seek to establish beneficial partnerships wherever the situations permit. Keep in mind that OKCCC was created to supply quality and quantity educational services to its constituencies. This requires vision and action as well as prudence.
9. Do not let the zeal for growth and recognition allow OKCCC to reduce the quality and quantity of educational service it continues to supply to its historic "bread and butter" constituents.
10. The Oklahoma City airport and the FAA Center are located in close proximity to OKCCC. Although some training relationships exist, it is evident that more could and should be done. It is extremely likely that the airport and the immediately adjacent area will continue to expand and will need the type of training services OKCCC is admirably qualified to supply.
11. Although OKCCC is housed on a much better than average campus, it is poorly located as far as day-to-day visibility by Oklahoma City residents is concerned. The landscaping should be accelerated so that a strong symbolic

image is kept before the citizens. The possibility of adding some dramatic physical symbol should be explored.

12. OKCCC has not yet established the type of collegiate reputation in the minds of the citizenry which its record warrants. Greater efforts must be made to familiarize the metroplex public with the track record, current contributions and capabilities for future service which this college possesses.
13. OKCCC should seriously consider the development of a strategic plan for the college. Such a plan will refine the objectives of the college and will help significantly in making day-to-day decisions compatible with such objectives. It will also serve as a measuring stick which will reveal the rate at which progress is being made.

Throughout this study a concerted effort has been made to present a balanced mix of both the philosophic and the pragmatic considerations which bear on the problems being examined and possible ways of solving or improving them. As was mentioned early in the report, it is not an in-depth statistical analysis although it obviously draws heavily on the factual setting in which any revisions in the status quo must take place. Its primary goal is to supply realistic ideas for changes which if implemented will effectively address the issues identified in CR 1025. Despite its many unsolved educational problems, the State of Oklahoma and the Oklahoma City metropolitan area are, when compared with other states and cities, in reasonably good shape. Nonetheless, it is clear that higher education in Oklahoma can and should be improved, and those charged with leadership roles in policy formation and management must aggressively seek the improvements needed to establish it as a front runner among the states of the nation.

Appendix I.

Metro Oklahoma City Market

This publication by the Daily Oklahoman provides an excellent breakdown of pertinent information in 22 defined areas of metropolitan Oklahoma City. It was created to provide marketing information for present and potential businesses and industries. Since public education has its own counterpart of business marketing, the data assembled in this table are a veritable gold mine. By dividing the metropolitan area into 22 statistical pieces the opportunity is opened to do "rifle" rather than "shotgun" market analysis and penetration. One of the important capabilities of the community college is the ability to create on comparatively short notice training opportunities which dovetail with the priority needs of its clientele. One need only reread sections 2, 3, and 4 of CR 1025 while scanning the wealth of information in this table to realize how significant it is. It provides clear answers to such questions as (1) How many people reside in a particular area? (2) How old are they? (3) How do they make a living? (4) How much education have they received? (5) How much money do they make? Armed with such information, educational planners can evolve sound solutions to the complex problems before them.

areas

METRO OKLAHOMA CITY MARKET

THE DAILY OKLAHOMAN • OKLAHOMA CITY TIMES • THE SUNDAY OKLAHOMAN

98

Characteristics of Oklahoma City

	Overall Market	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
**HOUSEHOLDS	318,800	13,500	15,050	7,200	19,700	13,700	12,300	9,100	15,600	11,200
AGE (Head of Household)										
Under 35	36%	62%	23%	38%	40%	48%	38%	37%	54%	30%
35 - 49	21	17	24	30	25	24	36	21	17	20
50 and Over	43	26	53	32	35	28	26	42	29	50
EDUCATION										
Some H.S. or Less	25%	15%	53%	40%	15%	24%	9%	33%	17%	37%
High School Grad	23	7	24	30	26	24	28	38	31	36
Vocational or Trade	6	4	5	8	6	3	7	2	10	2
Attended College	23	42	13	12	35	27	32	19	20	20
College Graduate	23	32	5	10	18	22	23	8	22	5
NUMBER IN HOUSEHOLD										
One	17%	21%	21%	10%	12%	8%	11%	14%	10%	19%
Two	34	38	27	12	25	26	30	33	35	41
Three	18	19	14	22	28	20	17	23	22	12
Four	19	15	20	24	25	23	26	19	24	14
Five	8	4	12	15	6	15	8	7	8	9
Six or More	4	3	6	17	4	8	8	4	1	5
PRESENCE OF CHILDREN										
No Children	57%	62%	49%	29%	48%	39%	49%	54%	51%	64%
Children Under 6	25	28	28	32	31	39	32	27	35	20
Children 6 - 17	29	19	34	51	30	42	45	31	28	23
OCCUPATION GROUPS										
Bus. and Prof.	18%	22%	10%	12%	17%	23%	19%	17%	15%	2%
Sal. and Semi-Prof.	26	32	*	19	17	15	28	11	17	23
Skilled Workers	43	26	50	58	53	50	44	54	55	70
Unskilled Workers	13	20	40	11	13	12	9	18	13	5
INCOME										
Under $10,000	27%	35%	56%	21%	17%	21%	10%	33%	21%	33%
$10,000 - $14,999	18	16	14	18	25	16	18	17	15	20
$15,000 - $19,999	14	10	14	15	17	18	15	19	15	20
$20,000 - $29,999	23	19	14	21	26	30	31	21	32	20
$30,000 and Over	18	20	2	25	15	15	26	10	17	
MEDIAN	$16,785	$14,687	$8,978	$18,666	$17,352	$18,610	$22,258	$14,999	$19,666	14,299

SOURCE: The Oklahoman and Times Continuing Consumer Audit of Metro Oklahoma City conducted by The Center for Economic and Management

* Less than one percent

** Household estimates rounded—Marketing Research Department, The Oklahoman and Times

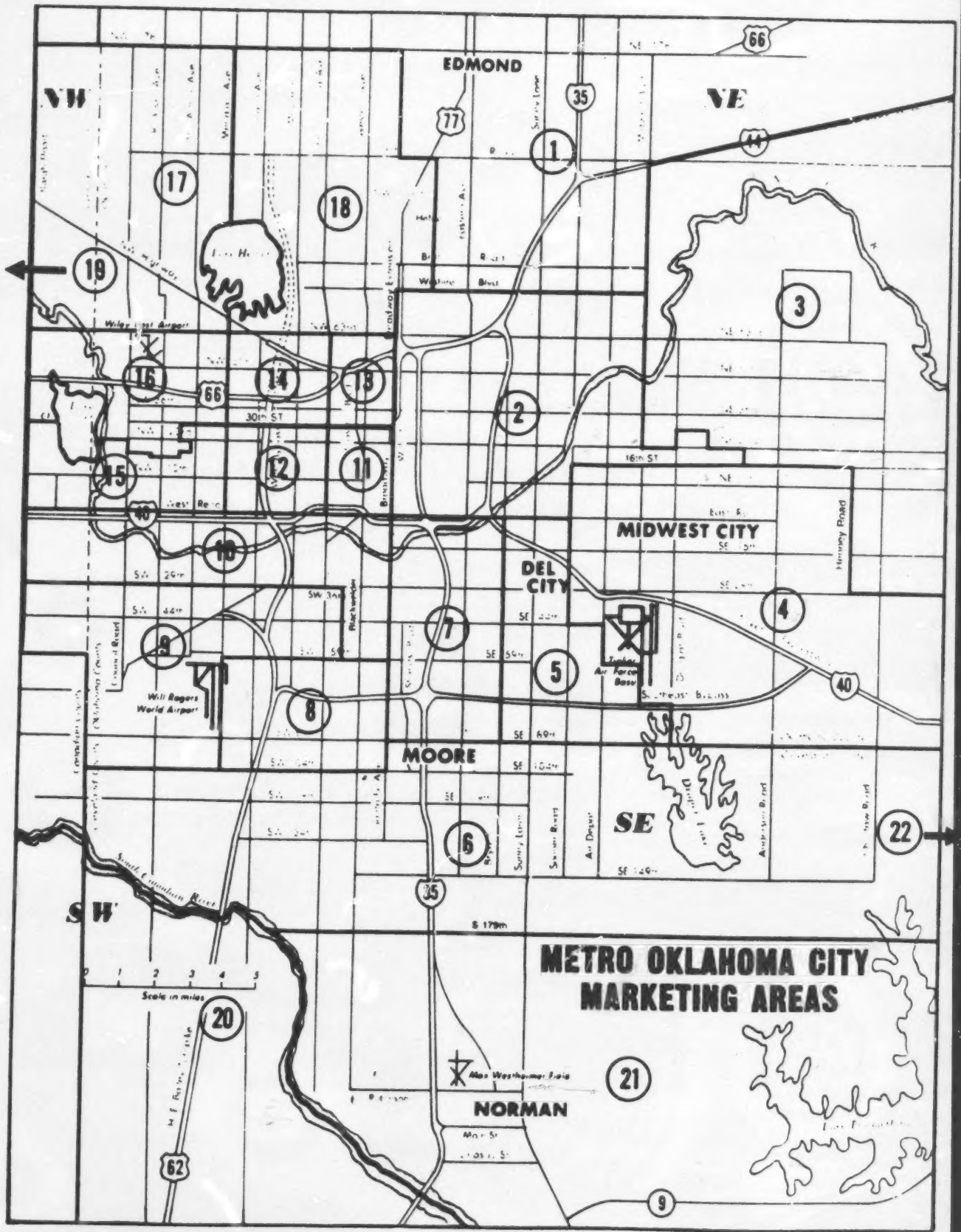
BEST COPY AVAILABLE

Households by Marketing Areas

Area 10	Area 11	Area 12	Area 13	Area 14	Area 15	Area 16	Area 17	Area 18	Area 19	Area 20	Area 21	Area 22
13,900	10,700	11,750	8,550	14,300	10,000	14,300	12,300	20,500	19,800	7,200	37,650	20,500
23%	32%	31%	25%	24%	41%	28%	58%	32%	40%	39%	41%	21%
8	14	13	10	18	29	32	27	11	25	21	28	12
69	54	56	65	58	30	40	15	57	35	40	31	67
60%	45%	33%	18%	6%	21%	21%	8%	11%	12%	39%	13%	48%
24	16	31	12	21	25	28	14	14	35	21	11	31
3	6	6	10	14	4	3	3	10	3	13	8	4
12	19	15	35	24	25	24	28	24	26	17	25	12
1	14	15	25	35	25	24	50	41	24	10	43	5
32%	30%	31%	29%	25%	23%	10%	8%	19%	10%	6%	15%	22%
43	38	30	49	51	25	44	23	42	26	31	31	40
8	6	19	16	8	29	24	27	19	15	17	20	16
9	11	12	2	6	19	13	30	13	33	31	21	12
4	10	5	4	9	4	6	9	6	14	9	11	3
4	5	3	*	1	*	3	3	1	2	6	2	7
74%	70%	69%	86%	83%	61%	61%	39%	72%	39%	44%	55%	66%
18	21	25	10	8	13	22	45	21	33	27	25	17
18	21	16	4	14	32	25	37	17	45	48	29	27
8%	15%	11%	21%	12%	21%	15%	29%	20%	11%	9%	28%	12%
23	15	18	25	43	31	24	44	46	26	17	34	21
58	52	42	37	27	43	50	20	25	50	60	30	52
11	18	29	17	18	15	11	7	9	13	14	7	15
62%	52%	33%	22%	20%	19%	18%	3%	13%	13%	22%	17%	52%
10	24	21	42	22	22	23	10	21	11	19	16	16
11	7	17	8	19	15	17	7	17	13	12	11	18
17	5	26	14	19	24	28	33	20	34	18	27	10
*	12	3	14	20	20	14	47	29	29	19	29	4
$8,064	$9,614	$14,047	$13,333	$17,105	$17,999	$17,647	$29,090	$19,705	$23,823	$14,736	$22,222	$9,[illegible]4

Research, The University of Oklahoma, 1981

BEST COPY AVAILABLE


EDMOND
NW
NE
SW
SE
MIDWEST CITY
DEL CITY
MOORE
NORMAN
Will Rogers World Airport
Tinker Air Force Base
Wiley Post Airport
Max Westheimer Field
Scale in miles
0 1 2 3 4 5
METRO OKLAHOMA CITY
MARKETING AREAS